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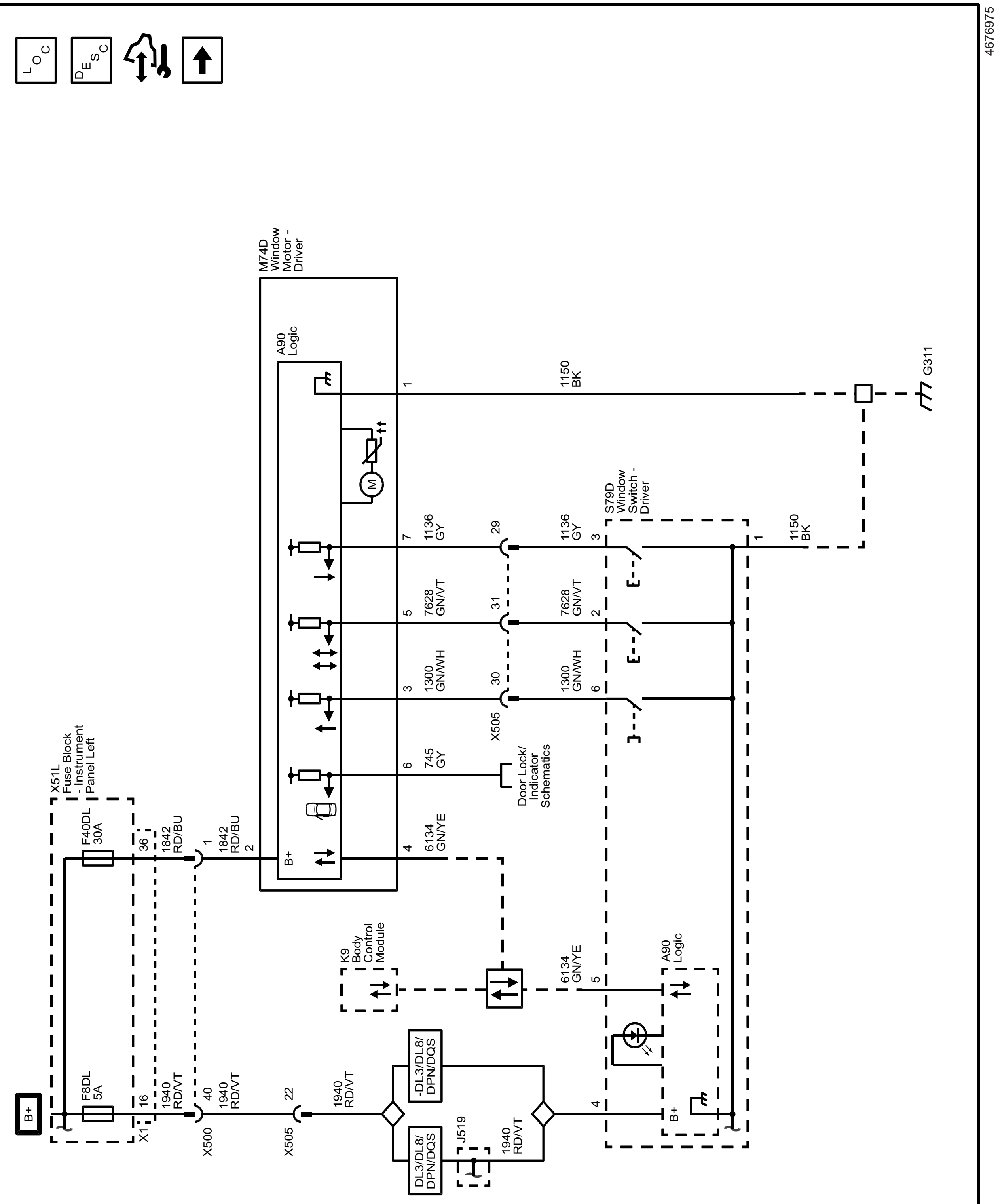
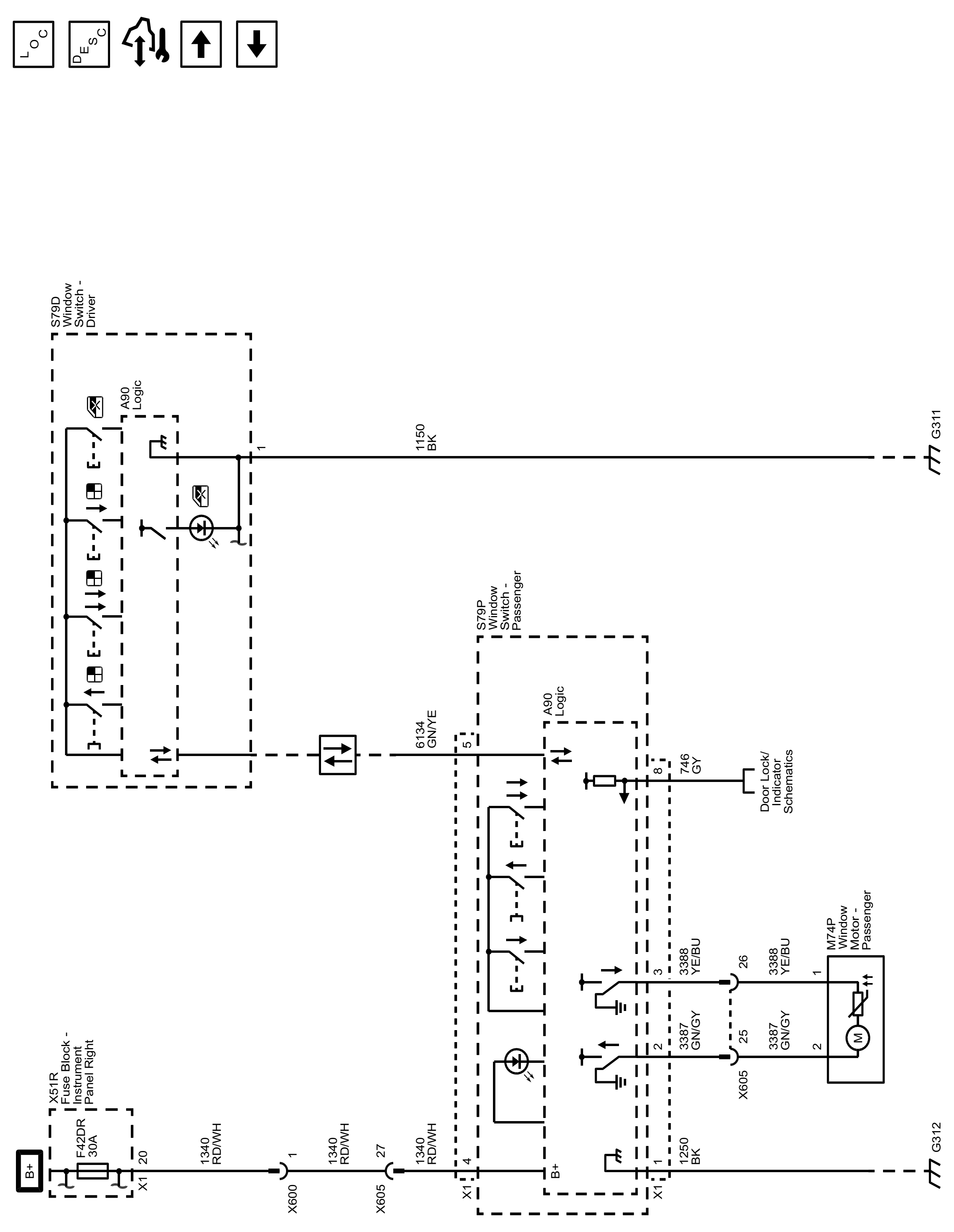
Fixed and Moveable Windows

Schematic and Routing Diagrams

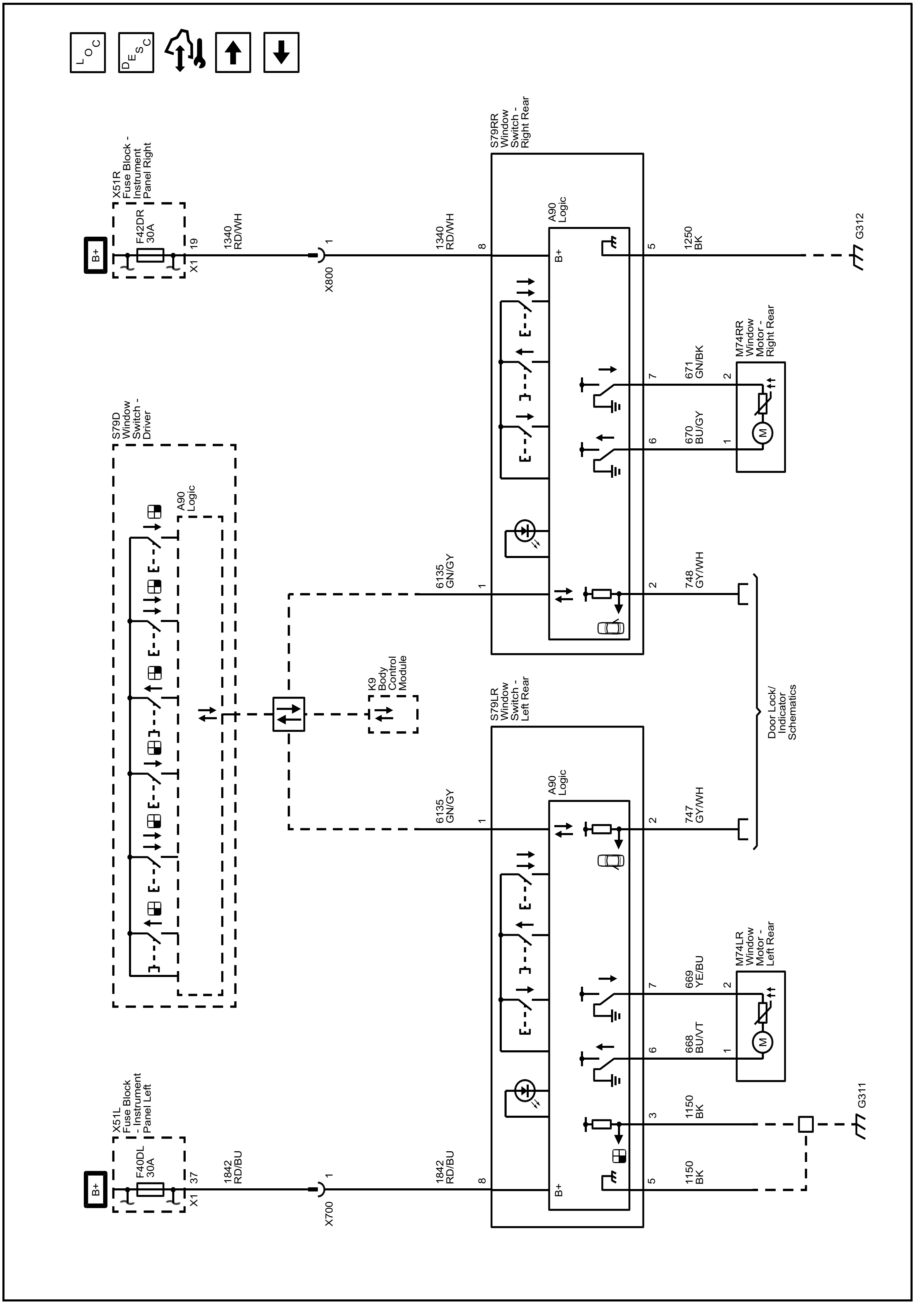
Moveable Window Schematics (Driver Door (A31))


4676975
LOC
DESC
M74D Window Motor - Driver
A90 Logic
1
1150 BK
G311
7
1136 GY
29
1136 GY
3
S79D Window Switch - Driver
1
1150 BK
5
7628 GN/VT
31
7628 GN/VT
2
3
1300 GN/WH
30
1300 GN/WH
6
X505
6
745 GY
Door Lock/ Indicator Schematics
X51L Fuse Block - Instrument Panel Left
F40DL 30A
36
1842 RD/BU
1
1842 RD/BU
2
B+
4
6134 GN/YE
K9 Body Control Module
6134 GN/YE
5
A90 Logic
B+
F8DL 5A
16
1940 RD/VT
X1
40
1940 RD/VT
X500
22
X505
1940 RD/VT
-DL3/DL8/ DPN/DQS
DL3/DL8/ DPN/DQS
J519
1940 RD/VT
4
B+
M

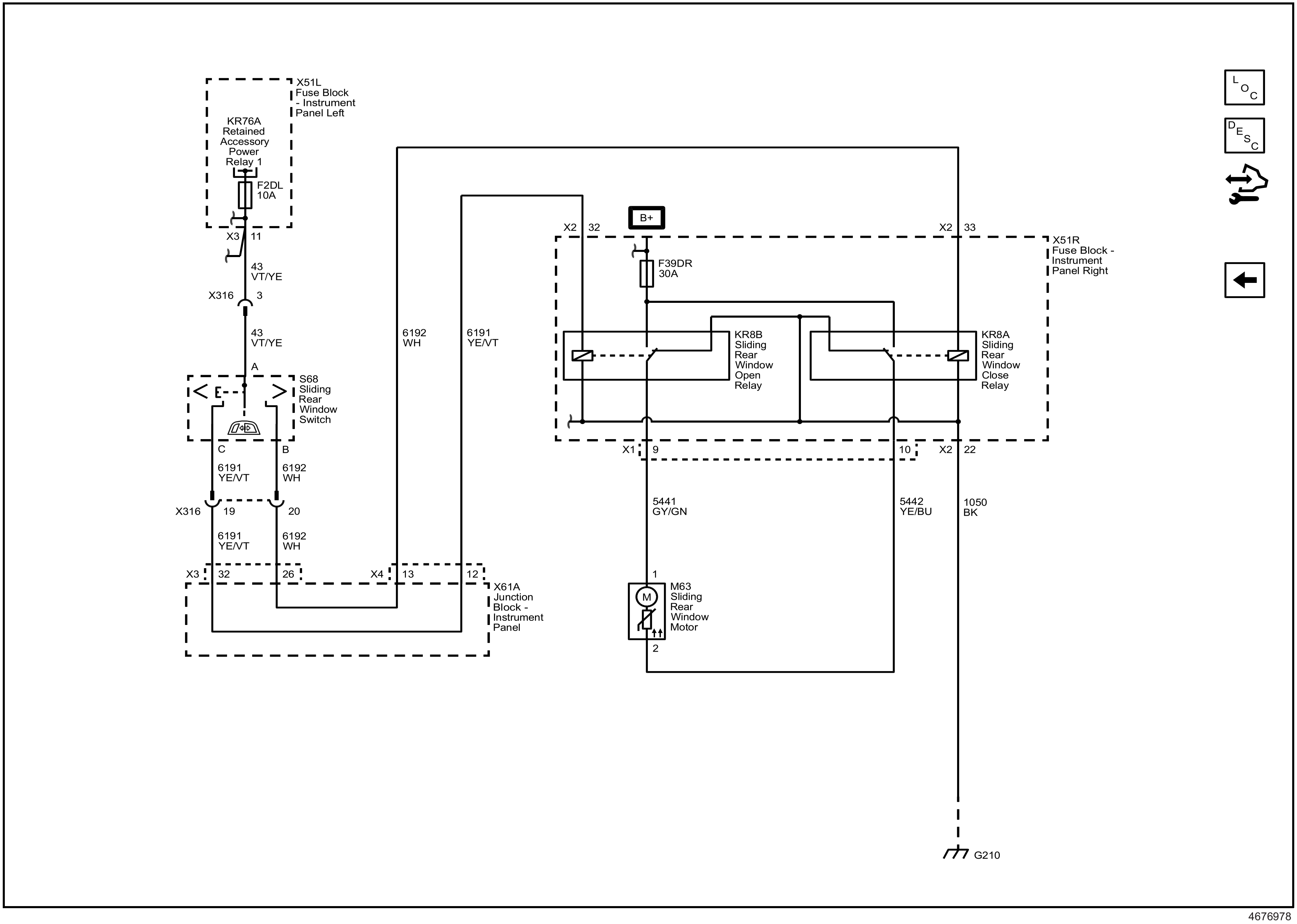
Moveable Window Schematics (Passenger Door (A31))


4676976
LOC
DESC
S79D Window Switch - Driver
A90 Logic
1
1150 BK
G311
6134 GN/YE
5
S79P Window Switch - Passenger
A90 Logic
8
746 GY
Door Lock/ Indicator Schematics
3
3388 YE/BU
26
3388 YE/BU
1
M74P Window Motor - Passenger
M
2
3387 GN/GY
25
3387 GN/GY
2
X605
B+
X51R Fuse Block - Instrument Panel Right
F42DR 30A
X1 20
1340 RD/WH
1
X600
1340 RD/WH
27
X605
1340 RD/WH
4
X1
B+
1
X1
1250 BK
G312

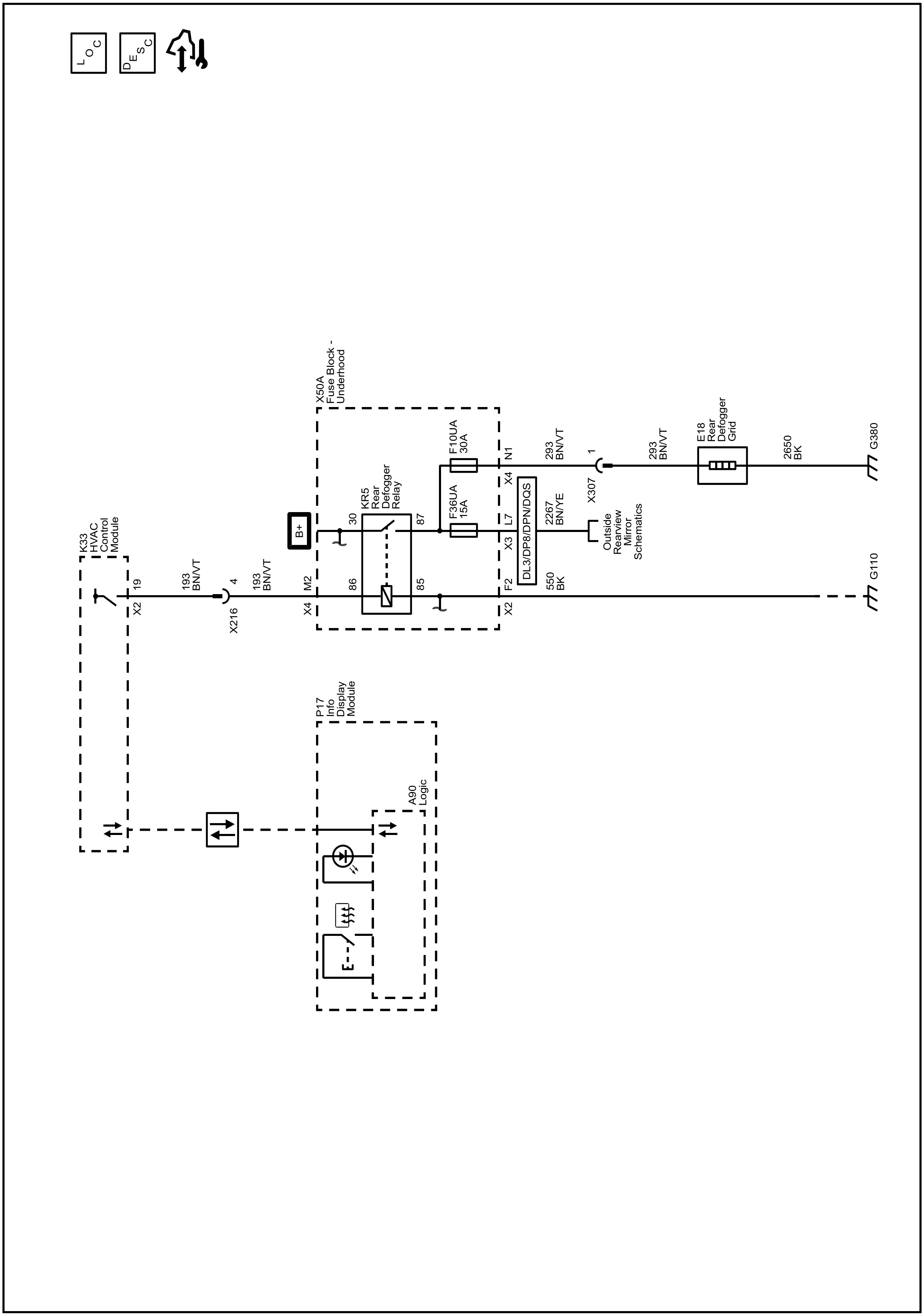
Moveable Window Schematics (Rear Doors (Extended or Crew Cab))


4676977
L O C
D E S C
B+
X51R Fuse Block - Instrument Panel Right
F42DR 30A
X1 19
1340 RD/WH
X800 1
1340 RD/WH
8
S79RR Window Switch - Right Rear
A90 Logic
B+
5
1250 BK
G312
7
671 GN/BK
6
670 BU/GY
M74RR Window Motor - Right Rear
2
1
M
1
6135 GN/GY
2
748 GY/WH
S79D Window Switch - Driver
A90 Logic
K9 Body Control Module
Door Lock/ Indicator Schematics
S79LR Window Switch - Left Rear
A90 Logic
1
6135 GN/GY
2
747 GY/WH
7
669 YE/BU
6
668 BU/VT
M74LR Window Motor - Left Rear
2
1
M
3
1150 BK
G311
5
1150 BK
B+
8
1842 RD/BU
X700 1
1842 RD/BU
X1 37
F40DL 30A
X51L Fuse Block - Instrument Panel Left
B+

Moveable Window Schematics (Rear Sliding Window (A48))


X51L
Fuse Block - Instrument Panel Left
KR76A
Retained Accessory Power Relay 1
F2DL
10A
X3
11
43
VT/YE
X316
3
43
VT/YE
A
S68
Sliding Rear Window Switch
C
B
6191
YE/VT
6192
WH
X316
19
20
6191
YE/VT
6192
WH
X3
32
26
X4
13
12
X61A
Junction Block - Instrument Panel
6192
WH
6191
YE/VT
B+
X2
32
X2
33
X51R
Fuse Block - Instrument Panel Right
F39DR
30A
KR8B
Sliding Rear Window Open Relay
KR8A
Sliding Rear Window Close Relay
X1
9
10
X2
22
5441
GY/GN
5442
YE/BU
1050
BK
1
M
M63
Sliding Rear Window Motor
2
G210
4676978

Defogger Schematics (Defogger)


4676995
LOC
DESC
K33 HVAC Control Module
X2 19
193 BN/VT
X216 4
193 BN/VT
X50A Fuse Block - Underhood
B+
X4 M2
30
86
KR5 Rear Defogger Relay
87
85
F36UA 15A
F10UA 30A
X4 N1
X3 L7
X2 F2
DL3/DP8/DPN/DQS
293 BN/VT
2267 BN/YE
550 BK
X307 1
Outside Rearview Mirror Schematics
293 BN/VT
E18 Rear Defogger Grid
2650 BK
G380
G110
P17 Info Display Module
A90 Logic

Description and Operation

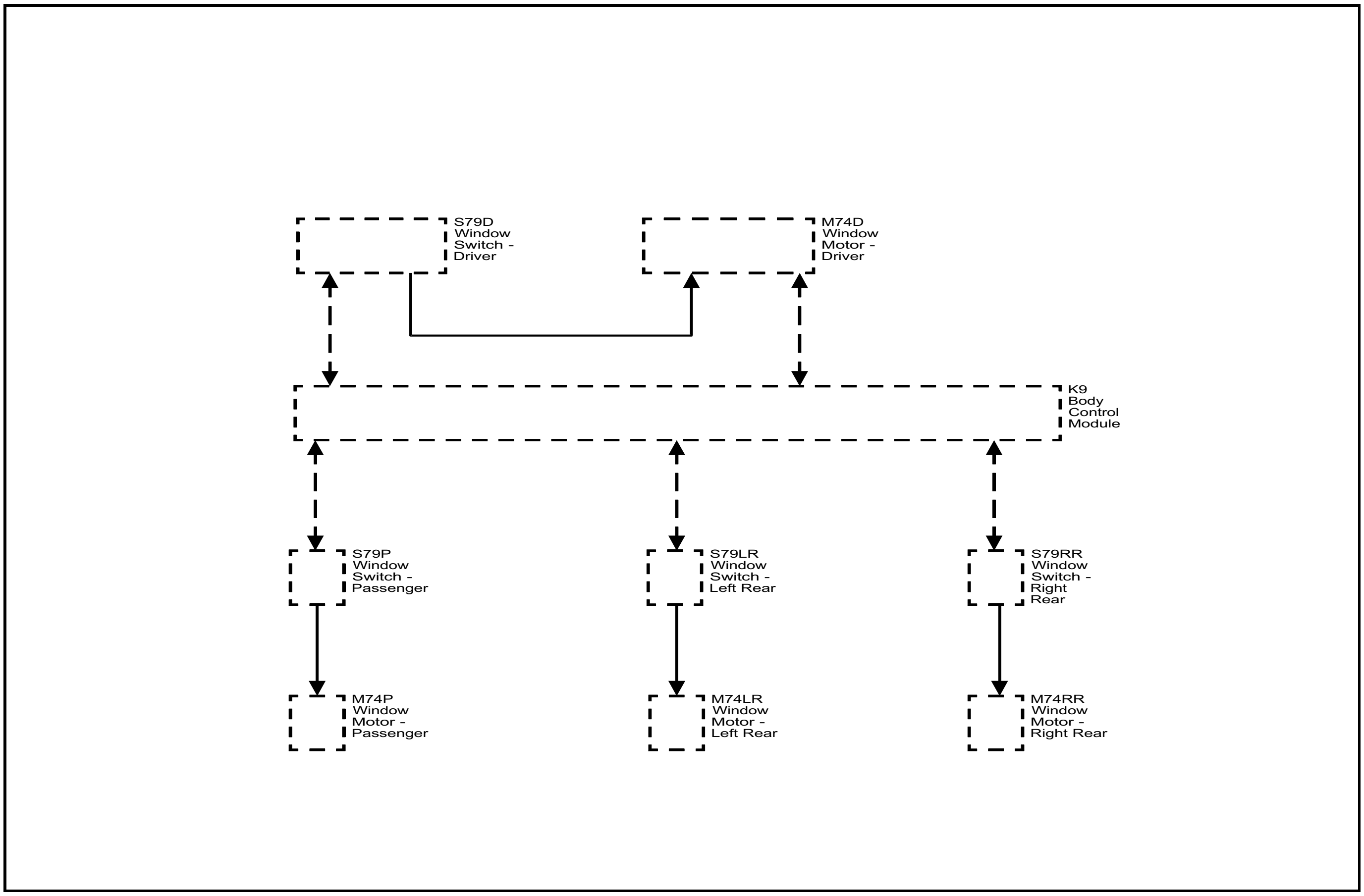
Power Windows Description and Operation

Power Windows System Components

The power window system consists of the following components:

- Driver window switch
- Passenger window switch
- Left rear window switch (Extended Cab and Crew Cab)
- Right rear window switch (Extended Cab and Crew Cab)
- Window motors in each of the doors
- Sliding rear window switch
- Sliding rear window relays
- Sliding rear window motor
- 30A Fuse
- Body control module (BCM)

14 Power Windows AXG-AER-AEQ Block Diagram


S79D Window Switch - Driver
M74D Window Motor - Driver
K9 Body Control Module
S79P Window Switch - Passenger
S79LR Window Switch - Left Rear
S79RR Window Switch - Right Rear
M74P Window Motor - Passenger
M74LR Window Motor - Left Rear
M74RR Window Motor - Right Rear

3461357

Driver Express Up and Express Down Power Window

The driver door contains a window motor is smart motor that will detect excessive resistance while performing the express up function and automatically reverse direction to prevent injury to any occupants that may become trapped between the closing window and the door frame. The automatic reverse safety feature can be overridden by pulling and holding the window switch.

The logic circuit within the window motor monitors the up, down and express signal circuits which are normally equal to B+ voltage. When a switch is used on the window switch, the contacts close causing a voltage drop within the appropriate signal circuit. The window motor will detect the voltage drop and will command the window to move in the direction requested.

The driver window switch communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger window, the driver will use the appropriate switch on the driver window switch. When this switch is used, a serial data message is sent to the BCM requesting the passenger window motor command, the BCM will then send a serial data message to the passenger window motor which will then move in the direction requested

Passenger, Left Rear and Right Rear Express Down Power Windows

For the passenger, right rear and left rear doors, when their window switch is pressed in the down position, battery positive voltage is applied to their respective window motor control circuit and ground to the other window motor control circuit causing that window to open. When the individual window switch is pulled in the up position, voltage and ground is applied to the window motor in the opposite direction causing that window to close. The return path to ground is supplied through the inactive control circuit being normally grounded through the window switch.

Each passenger and rear window switch communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger, left rear or right rear window, the driver will use the appropriate switch on the driver window switch. When this switch is used, a serial data message is sent to the BCM requesting a window motor command, the BCM will then send a serial data message to the appropriate door window switch which will then command that window to move in the direction requested.

Rear Window and Rear Door Lockout Operation (Extended Cab and Crew Cab)

The driver power window switch contains a window lockout switch, when the driver presses the window lockout switch, a serial data message is sent to the BCM which will send a disable command to the rear window motors, the rear window motors will then ignore all voltage drops in the window motor control circuits caused by using the rear window switches. The rear windows will still function normally from the switches on the driver window switch.

Power Sliding Rear Window

NOTE: Power window lockout switch disables left rear and right rear passenger window switches only and has no effect on the operation of the power sliding window switch.

The power sliding rear window motor is controlled from the rear window OPEN/CLOSE switch through OPEN and CLOSE relays. The OPEN/CLOSE switch is supplied voltage from the body control module accessory voltage output circuit. When the switch is pressed in the OPEN or CLOSED position the OPEN or CLOSED relay coil will be supplied accessory voltage and energized through the appropriate relay control circuit. While the OPEN and CLOSE relays are in a de-energized state both motor control circuits will be closed to ground. When one of the relays is energized its motor control circuit will be closed to the battery voltage supply circuit and the other motor control circuit will remain grounded through the de-energized relay.

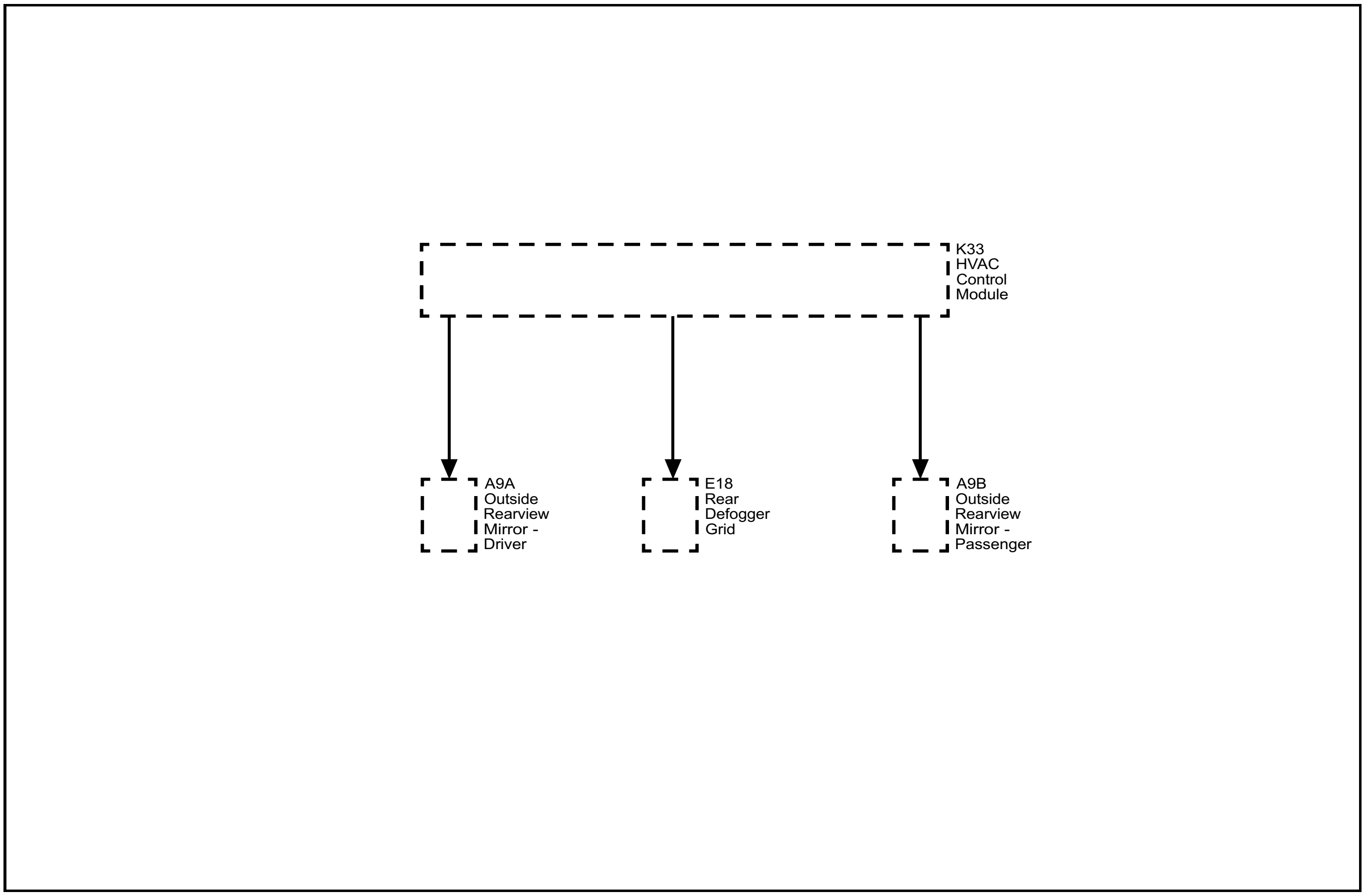
Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC control module
- Rear defogger relay
- Rear defogger grid
- 40A fuse

Rear Window Defogger Block Diagram



3270437

Rear Window Defogger Operation

The rear defog control system utilizes a single zone backlight design, driven with a single relay configuration. Additionally, up to two outside rear view mirrors can be heated if equipped. A switch for the customer to control the system is provided within the HVAC control module, also included in the HVAC control module is an indicator to inform the customer with the current state of the system. The system is only operational when engine is running or during remote start.

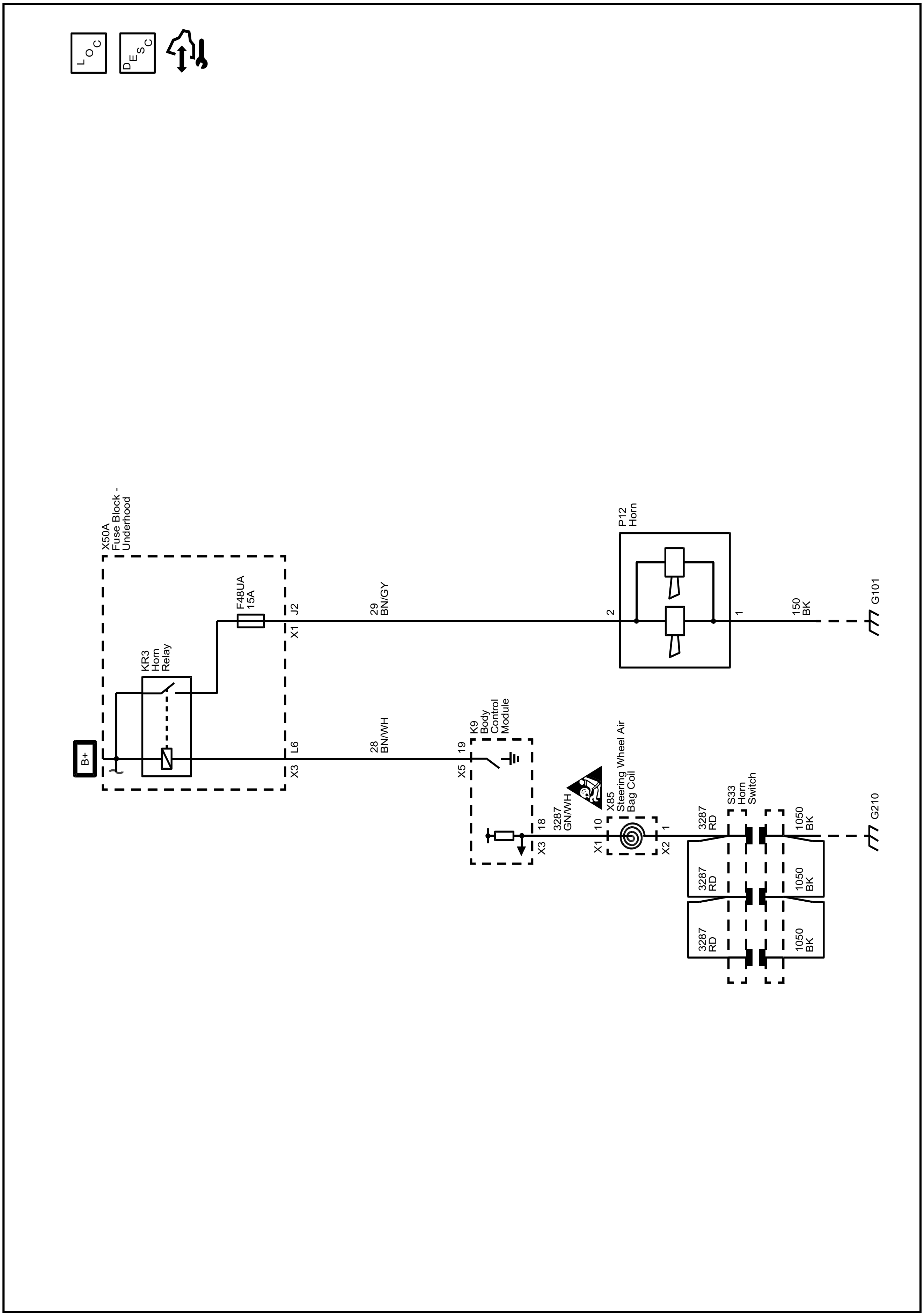
Pressing the heated rear window switch on the HVAC control module causes the HVAC control module to provide voltage to the coil side of the rear defogger relay, this will energize the relay causing the relay switch contacts to close allowing B+ voltage to flow through the rear defogger grid control circuit to the rear defogger grid.

When the rear heated rear window switch is pressed and the engine is running, the rear window defogger grid will activate and will turn off automatically depending upon the vehicle speed (refer to owner’s manual for rear window defogger operation cycles)

Horns and Pedestrian Alerts

Schematic and Routing Diagrams

Horn Schematics (Horn)


4676997
LOC
DESC
B+
X50A Fuse Block - Underhood
KR3 Horn Relay
F48UA 15A
X3 L6
X1 J2
29 BN/GY
28 BN/WH
K9 Body Control Module
X5 19
X3 18
3287 GN/WH
X85 Steering Wheel Air Bag Coil
X1 10
X2 1
S33 Horn Switch
3287 RD
1050 BK
G210
P12 Horn
2
1
150 BK
G101

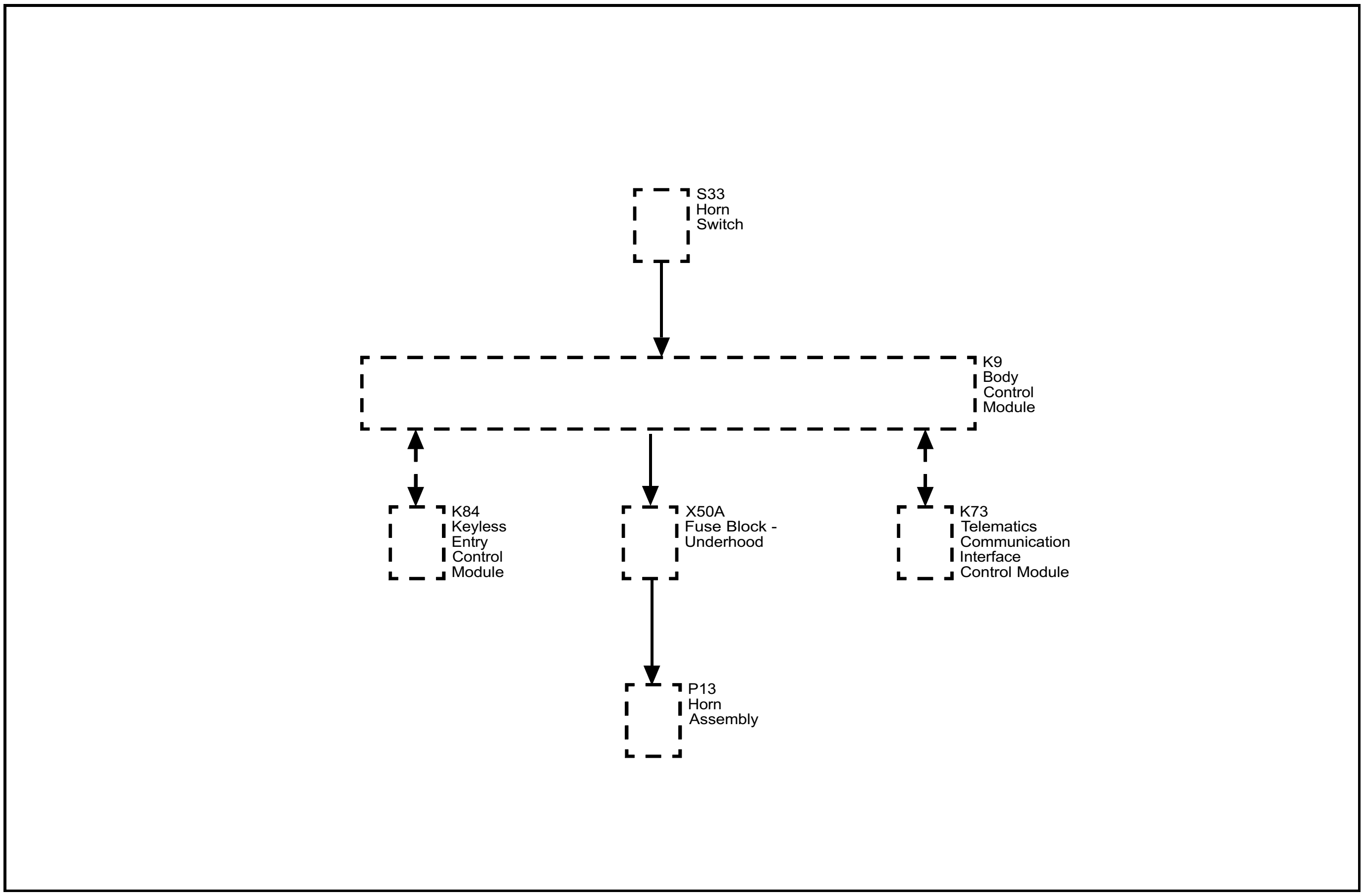
Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- HORN fuse
- Horn relay
- Horn switch
- Horn assembly
- Body control module (BCM)



3270443

System Operation

The vehicle horn system is activated under the following conditions:

- When the horn switch is depressed
- The BCM commands the horns ON under any of the following conditions:
  - When the content theft deterrent system detects a vehicle intrusion—For further information refer to *CELL Link Error - Link target cell (cell ID 149050) is invalid for this publication.*.
  - When the panic button is depressed on the remote control door lock transmitter—For further information refer to *CELL Link Error - Link target cell (cell ID 52297) is invalid for this publication.*.
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to *CELL Link Error - Link target cell (cell ID 52297) is invalid for this publication.*.
  - When the OnStar® system is used to sound the horns if equipped—For further information, refer to *OnStar Description and Operation on page 3-20*.

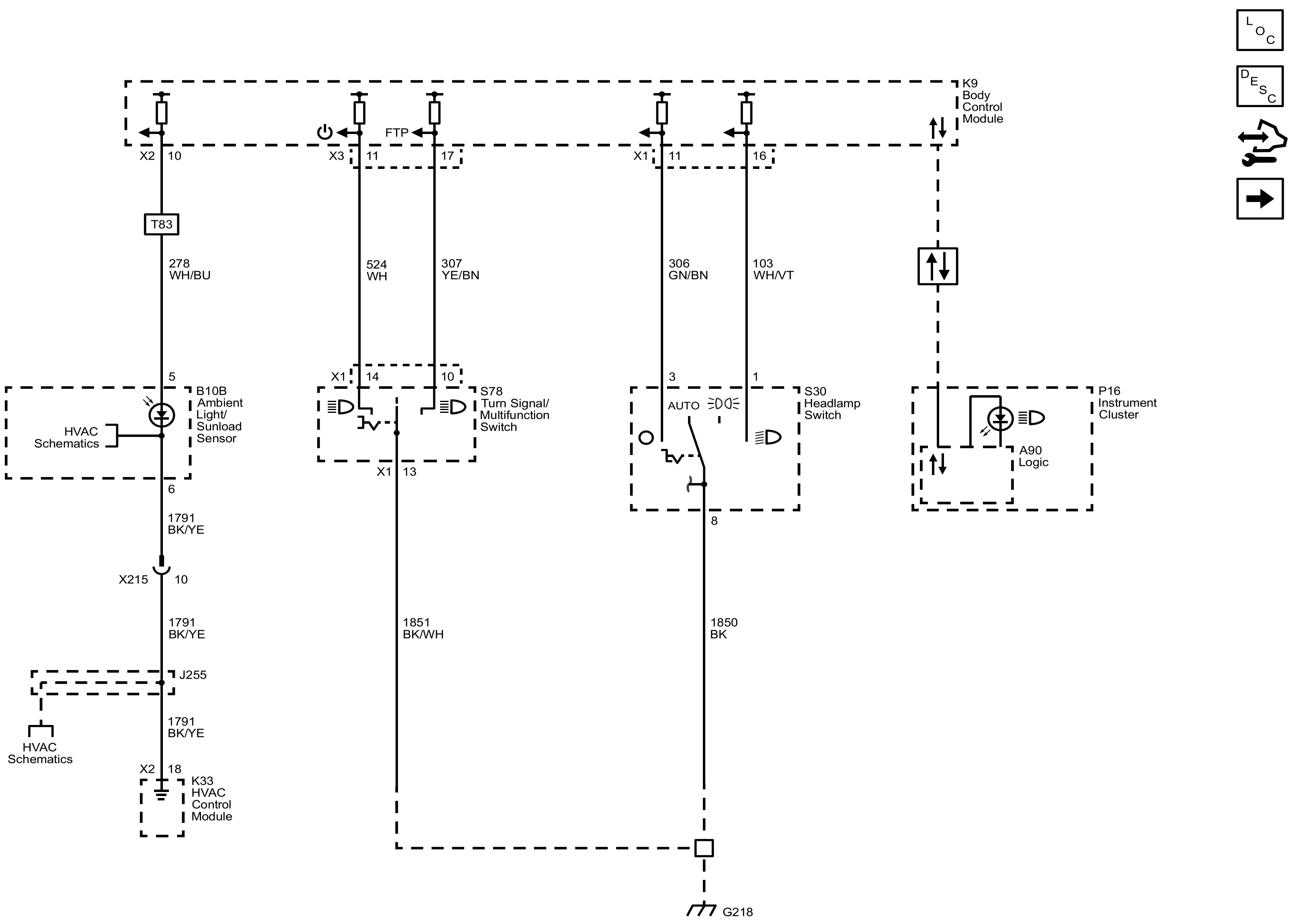
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing either of the horn switches applies ground to the horn relay control circuit. The BCM may also apply ground to the horn relay control circuit as described above. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

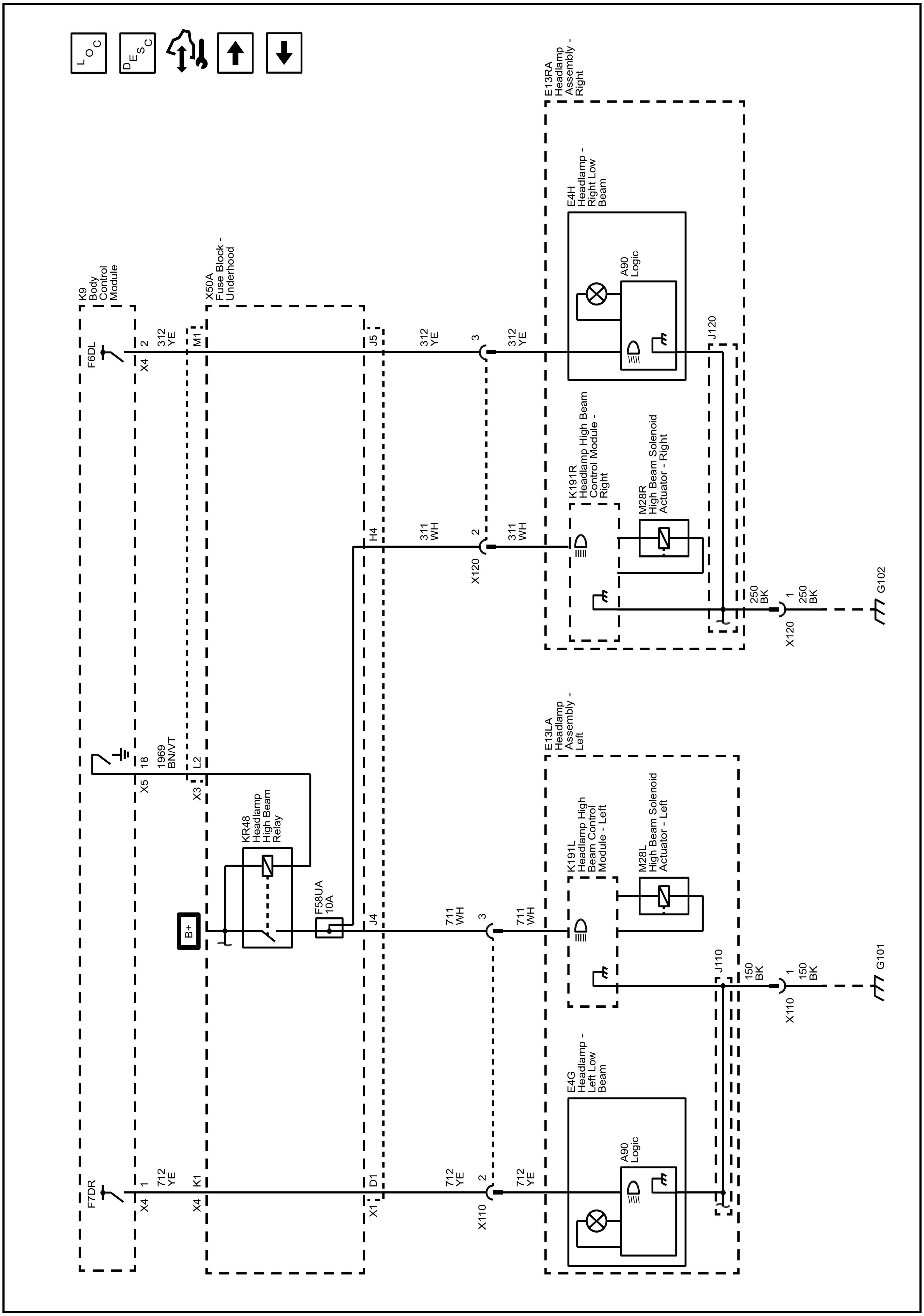
Lighting

Schematic and Routing Diagrams

Headlights/Daytime Running Lights (DRL) Schematics (Controls)

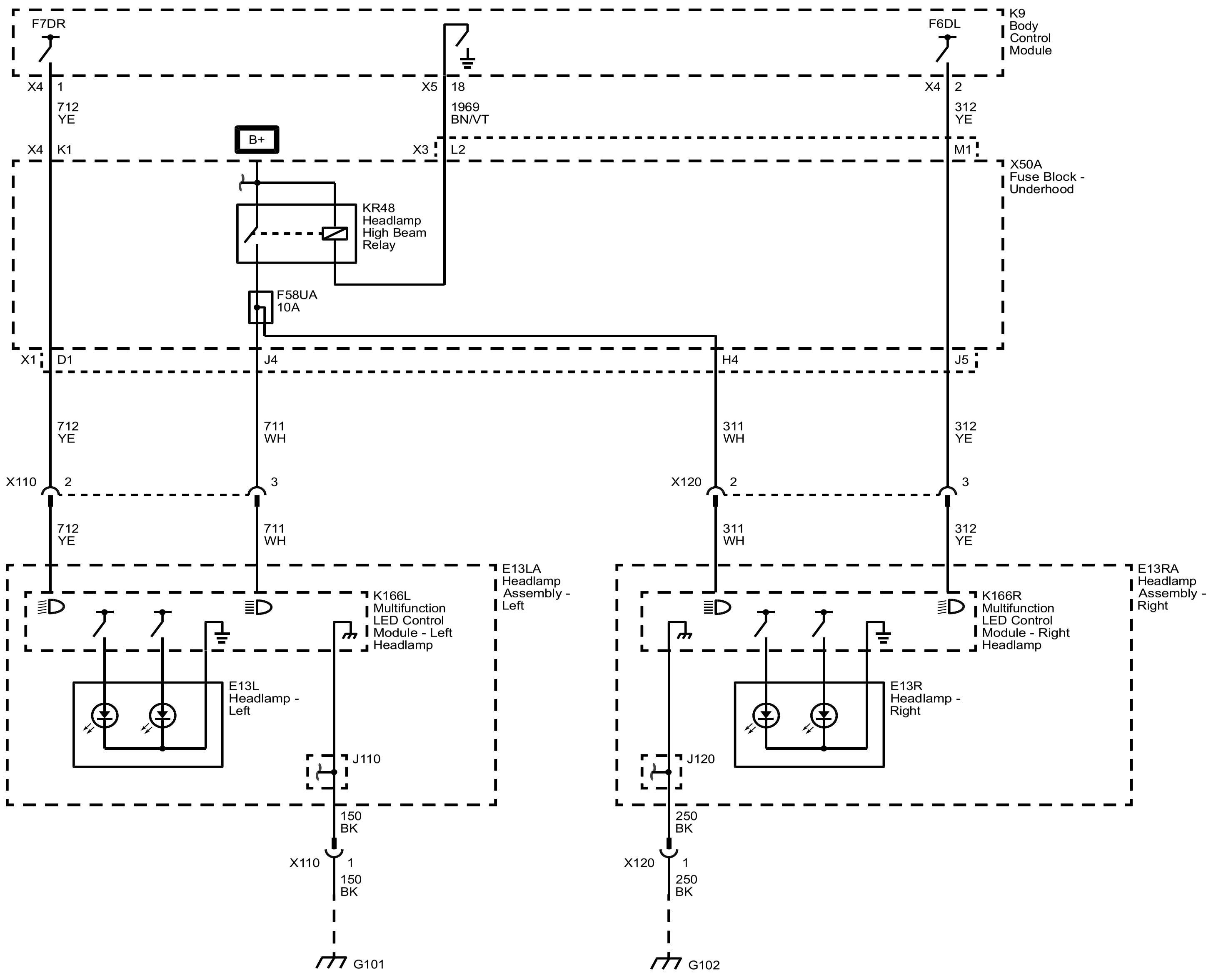

K9
Body
Control
Module
X2 10
X3 11
FTP
17
X1 11
16
T83
278
WH/BU
524
WH
307
YE/BN
306
GN/BN
103
WH/VT
5
B10B
Ambient
Light/
Sunload
Sensor
HVAC
Schematics
6
1791
BK/YE
X215 10
1791
BK/YE
J255
1791
BK/YE
HVAC
Schematics
X2 18
K33
HVAC
Control
Module
X1 14
10
S78
Turn Signal/
Multifunction
Switch
X1 13
1851
BK/WH
3
1
AUTO
S30
Headlamp
Switch
8
1850
BK
G218
P16
Instrument
Cluster
A90
Logic
4676998

Headlights/Daytime Running Lights (DRL) Schematics (Headlamps (1500 with X88 with T4F))

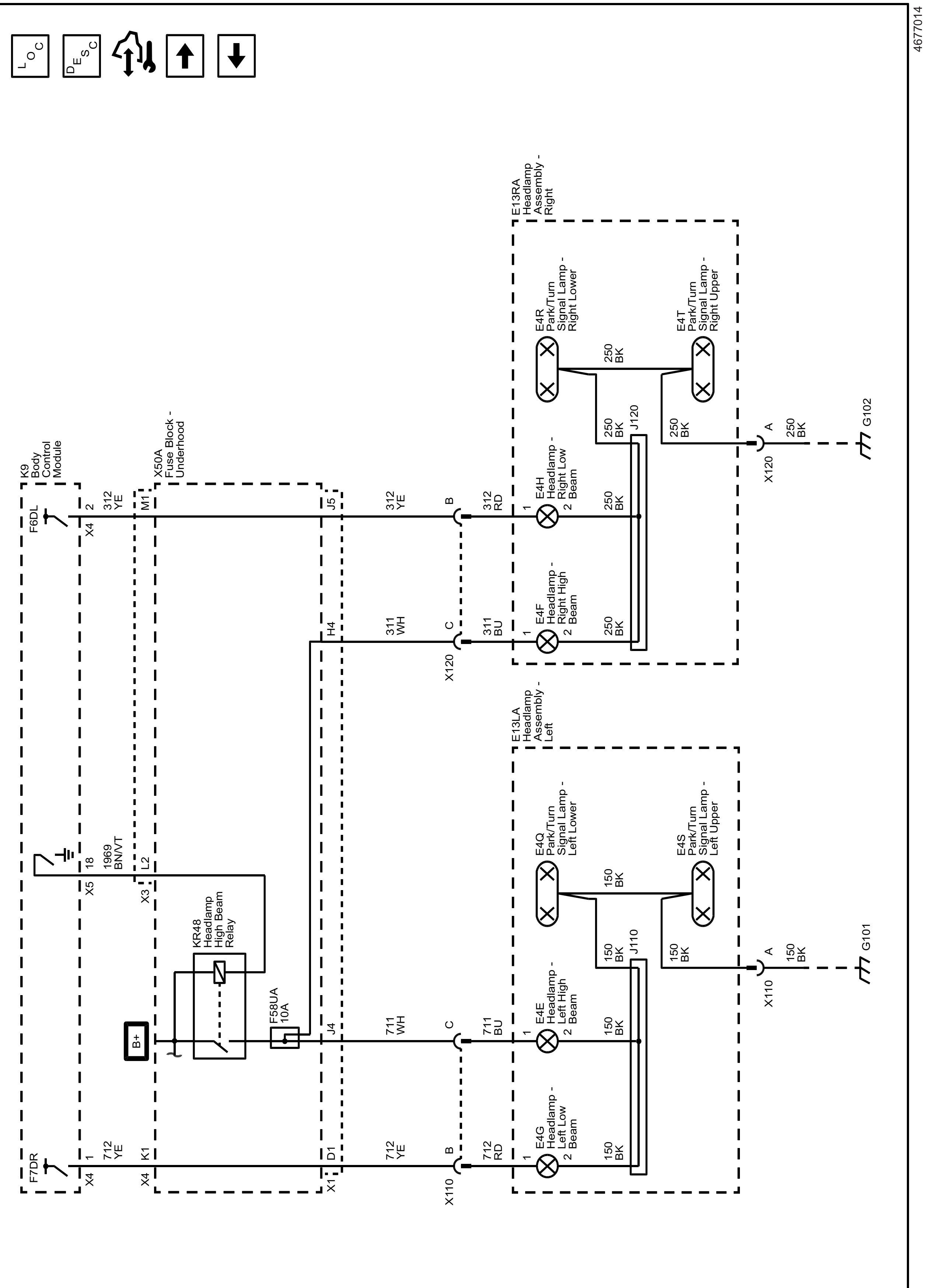


4677001
L O C
D E S C
K9 Body Control Module
F6DL
X4 2
312 YE
F7DR
X4 1
712 YE
X5 18
1969 BN/VT
X50A Fuse Block - Underhood
M1
L2
X3
K1
X4
J5
H4
J4
D1
X1
KR48 Headlamp High Beam Relay
B+
F58UA 10A
312 YE
311 WH
711 WH
712 YE
X120
3
2
X110
3
2
E13RA Headlamp Assembly - Right
E4H Headlamp - Right Low Beam
A90 Logic
J120
K191R Headlamp High Beam Control Module - Right
M28R High Beam Solenoid Actuator - Right
250 BK
1
X120
250 BK
G102
E13LA Headlamp Assembly - Left
K191L Headlamp High Beam Control Module - Left
M28L High Beam Solenoid Actuator - Left
J110
150 BK
1
X110
150 BK
G101
E4G Headlamp - Left Low Beam
A90 Logic

Headlights/Daytime Running Lights (DRL) Schematics (Headlamps (1500 with X88 without T4F))

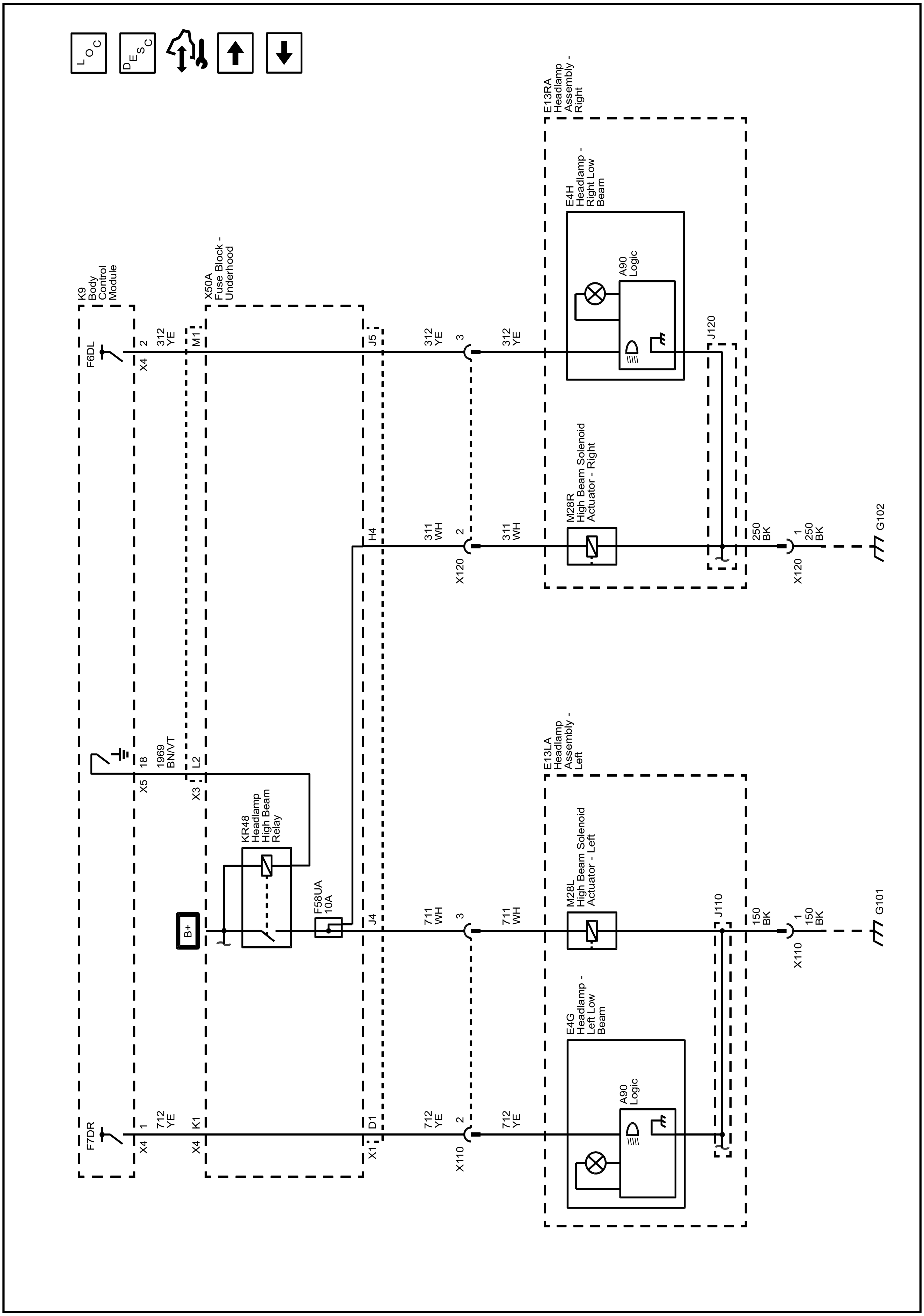

F7DR
F6DL
K9
Body
Control
Module
X4 1
712
YE
X5 18
1969
BN/VT
X4 2
312
YE
B+
X4 K1
X3 L2
M1
X50A
Fuse Block -
Underhood
KR48
Headlamp
High Beam
Relay
F58UA
10A
X1 D1
J4
H4
J5
712
YE
711
WH
311
WH
312
YE
X110 2
3
X120 2
3
712
YE
711
WH
311
WH
312
YE
E13LA
Headlamp
Assembly -
Left
K166L
Multifunction
LED Control
Module - Left
Headlamp
E13L
Headlamp -
Left
J110
E13RA
Headlamp
Assembly -
Right
K166R
Multifunction
LED Control
Module - Right
Headlamp
E13R
Headlamp -
Right
J120
150
BK
X110 1
150
BK
G101
250
BK
X120 1
250
BK
G102
L O C
D E S C
4677002

Headlights/Daytime Running Lights (DRL) Schematics (Headlamps (2500/3500 with X88))

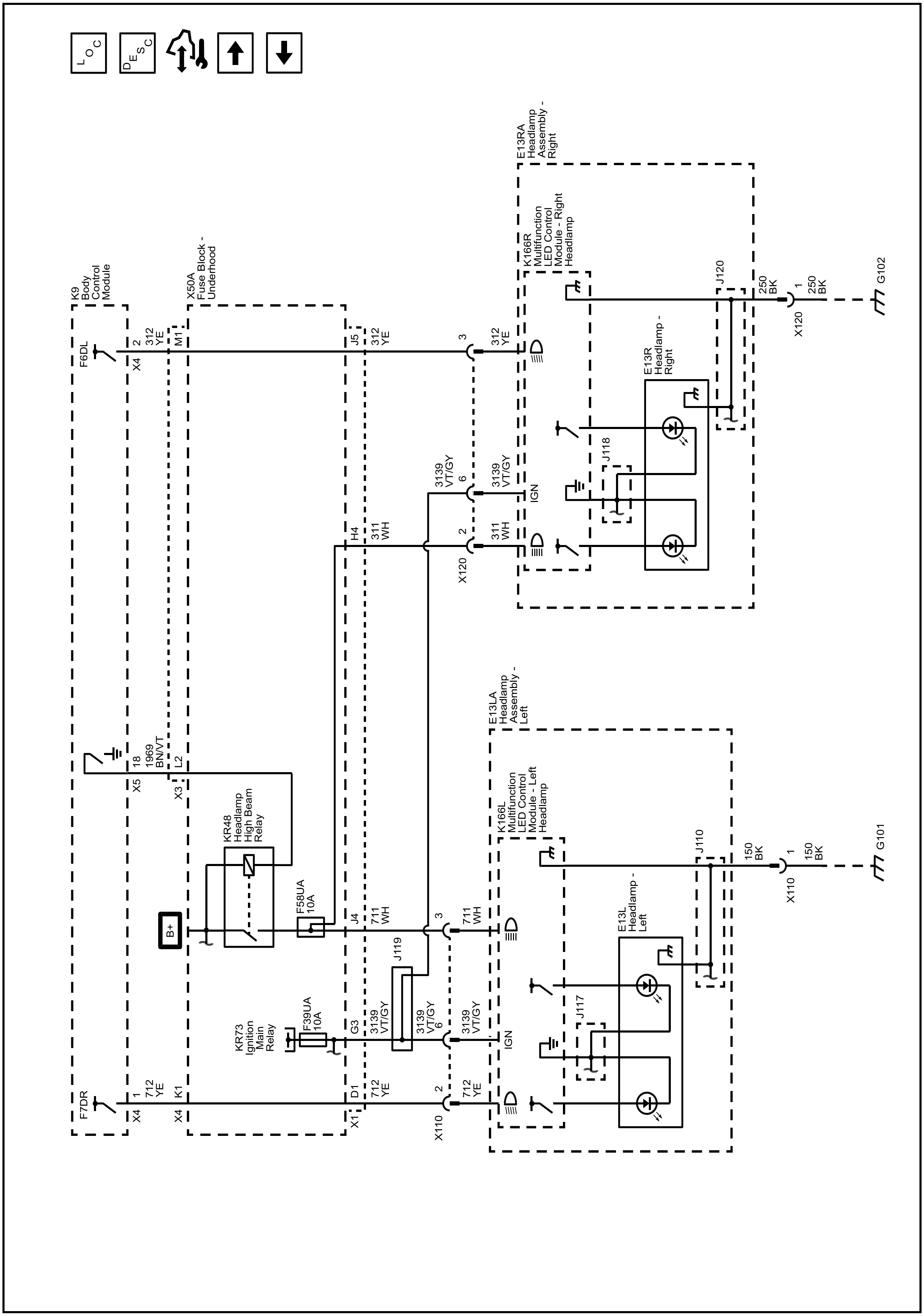


LOC
DESC
4677014
K9 Body Control Module
F6DL
X4 2
312 YE
F7DR
X4 1
712 YE
X5 18
1969 BN/VT
X50A Fuse Block - Underhood
M1
J5
L2
X3
KR48 Headlamp High Beam Relay
B+
F58UA 10A
H4
J4
D1
X1
K1
X4
312 YE
311 WH
711 WH
712 YE
B
C
X120
X110
312 RD
311 BU
711 BU
712 RD
E13RA Headlamp Assembly - Right
E4H Headlamp - Right Low Beam
E4F Headlamp - Right High Beam
E4R Park/Turn Signal Lamp - Right Lower
E4T Park/Turn Signal Lamp - Right Upper
1
2
250 BK
J120
A
G102
E13LA Headlamp Assembly - Left
E4G Headlamp - Left Low Beam
E4E Headlamp - Left High Beam
E4Q Park/Turn Signal Lamp - Left Lower
E4S Park/Turn Signal Lamp - Left Upper
150 BK
J110
G101

Headlights/Daytime Running Lights (DRL) Schematics (Headlamps (1500 with Z88 with T4F))

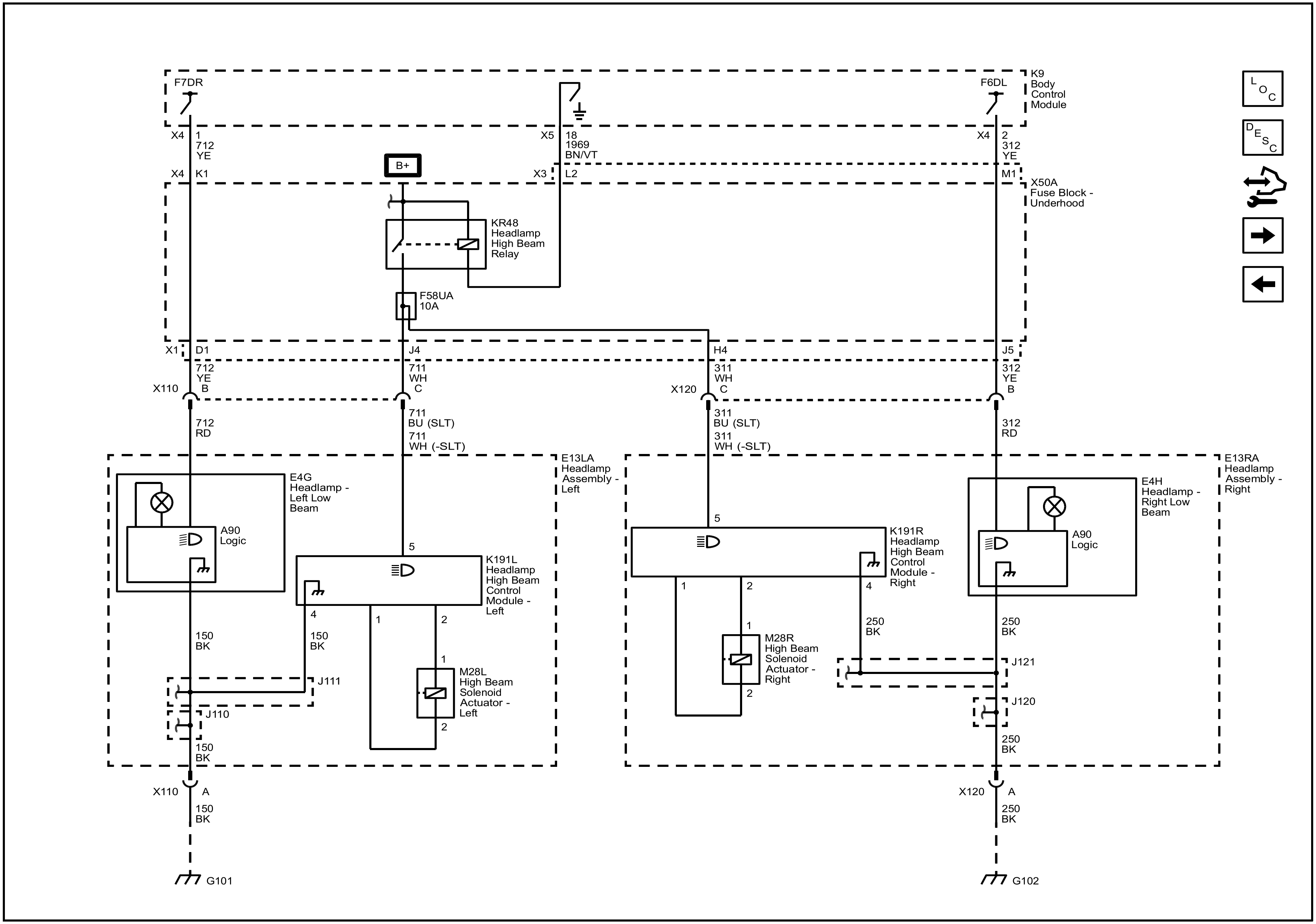

L O C
D E S C
4677016
K9 Body Control Module
F6DL
F7DR
X4 2
X4 1
X5 18
312 YE
712 YE
1969 BN/VT
X50A Fuse Block - Underhood
M1
K1
L2
X3
X4
J5
H4
J4
D1
X1
KR48 Headlamp High Beam Relay
B+
F58UA 10A
312 YE
311 WH
711 WH
712 YE
3
2
3
2
X120
X110
E13RA Headlamp Assembly - Right
E4H Headlamp - Right Low Beam
A90 Logic
M28R High Beam Solenoid Actuator - Right
J120
E13LA Headlamp Assembly - Left
E4G Headlamp - Left Low Beam
A90 Logic
M28L High Beam Solenoid Actuator - Left
J110
250 BK
1
250 BK
X120
G102
150 BK
1
150 BK
X110
G101

Headlights/Daytime Running Lights (DRL) Schematics (Headlamps (1500/Z88 without T4F))



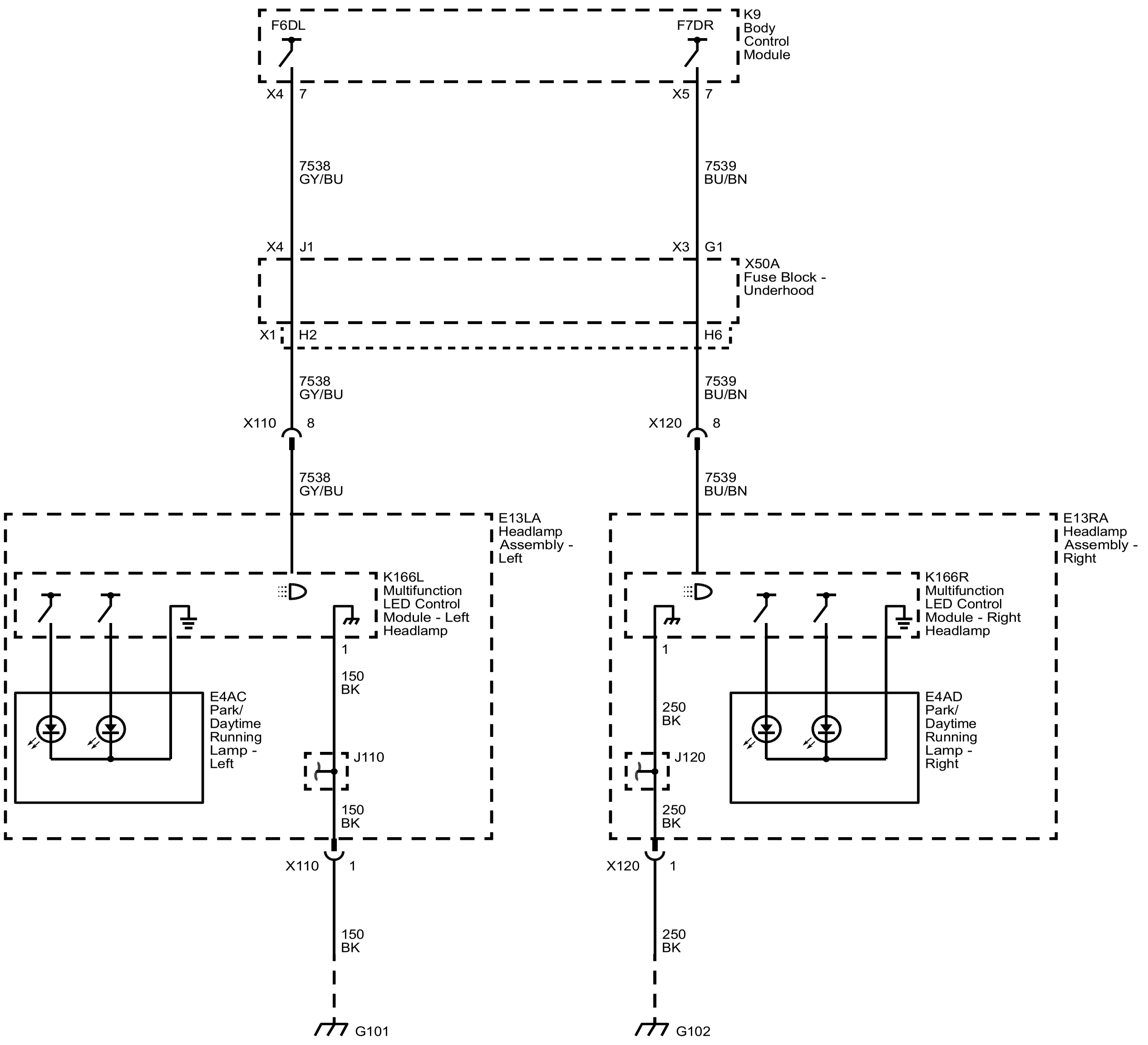
4677017
K9
Body
Control
Module
F6DL
X4
2
312
YE
X50A
Fuse Block -
Underhood
M1
J5
312
YE
3
312
YE
E13RA
Headlamp
Assembly -
Right
K166R
Multifunction
LED Control
Module - Right
Headlamp
J120
250
BK
1
250
BK
X120
G102
E13R
Headlamp -
Right
J118
3139
VT/GY
6
3139
VT/GY
IGN
H4
311
WH
2
311
WH
X120
X5
18
1969
BN/VT
L2
X3
KR48
Headlamp
High Beam
Relay
B+
F58UA
10A
J4
711
WH
3
711
WH
J119
E13LA
Headlamp
Assembly -
Left
K166L
Multifunction
LED Control
Module - Left
Headlamp
J110
150
BK
1
150
BK
X110
G101
E13L
Headlamp -
Left
J117
KR73
Ignition
Main
Relay
F39UA
10A
G3
3139
VT/GY
3139
VT/GY
6
3139
VT/GY
IGN
F7DR
X4
1
712
YE
X4
K1
D1
712
YE
X1
2
712
YE
X110

Headlights/Daytime Running Lights (DRL) Schematics (Headlamps (2500/3500 with Z88))

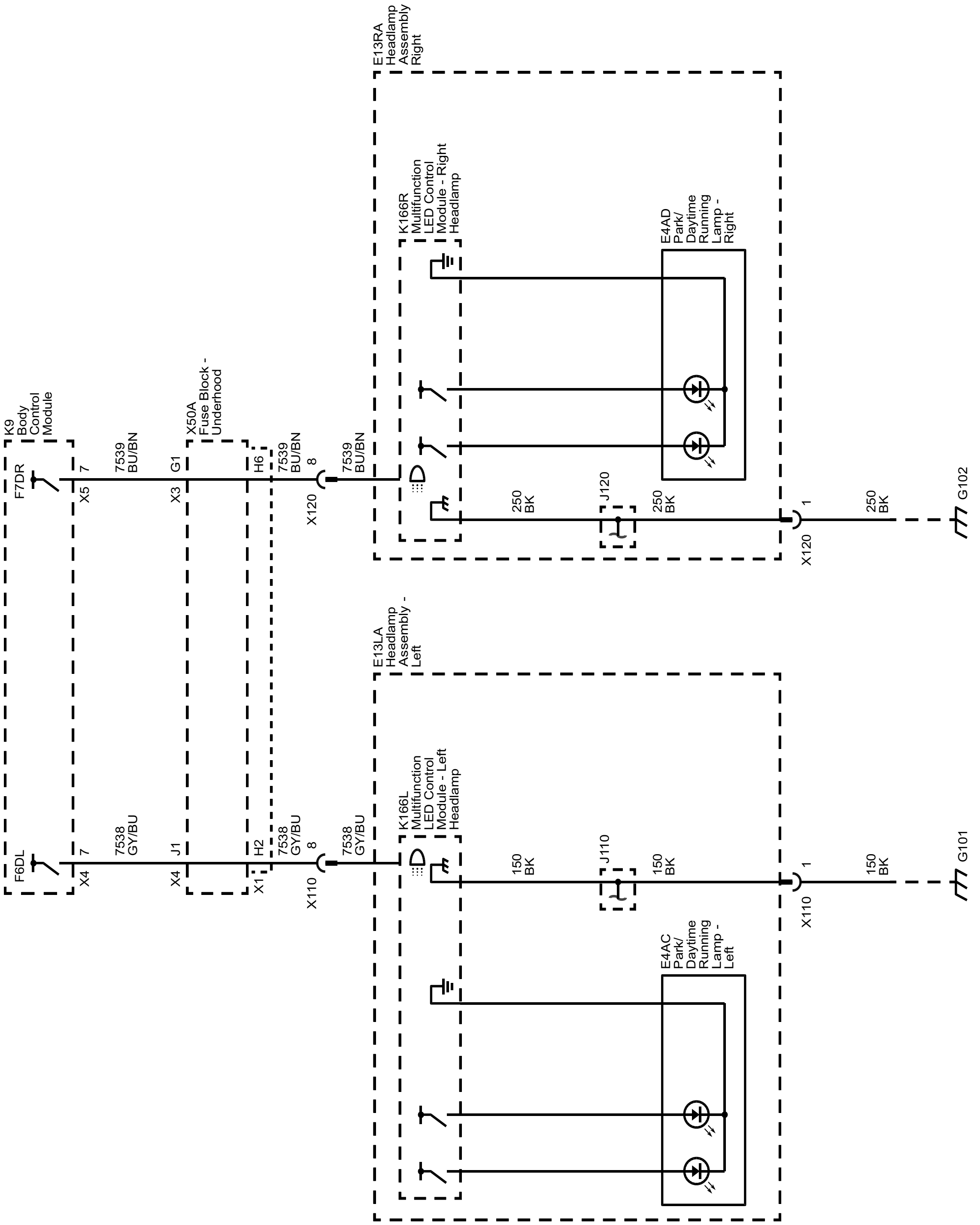

F7DR
F6DL
K9
Body
Control
Module
X4
1
712
YE
X5
18
1969
BN/VT
X4
2
312
YE
X4
K1
X3
L2
M1
B+
X50A
Fuse Block -
Underhood
KR48
Headlamp
High Beam
Relay
F58UA
10A
X1
D1
J4
H4
J5
712
YE
B
711
WH
C
311
WH
C
312
YE
B
X110
X120
712
RD
711
BU (SLT)
711
WH (-SLT)
311
BU (SLT)
311
WH (-SLT)
312
RD
E13LA
Headlamp
Assembly -
Left
E13RA
Headlamp
Assembly -
Right
E4G
Headlamp -
Left Low
Beam
A90
Logic
5
K191L
Headlamp
High Beam
Control
Module -
Left
4
1
2
150
BK
M28L
High Beam
Solenoid
Actuator -
Left
J111
J110
K191R
Headlamp
High Beam
Control
Module -
Right
E4H
Headlamp -
Right Low
Beam
250
BK
M28R
High Beam
Solenoid
Actuator -
Right
J121
J120
A
G101
G102

4677020

Headlights/Daytime Running Lights (DRL) Schematics (Daytime Running Lamps (1500 with X88))

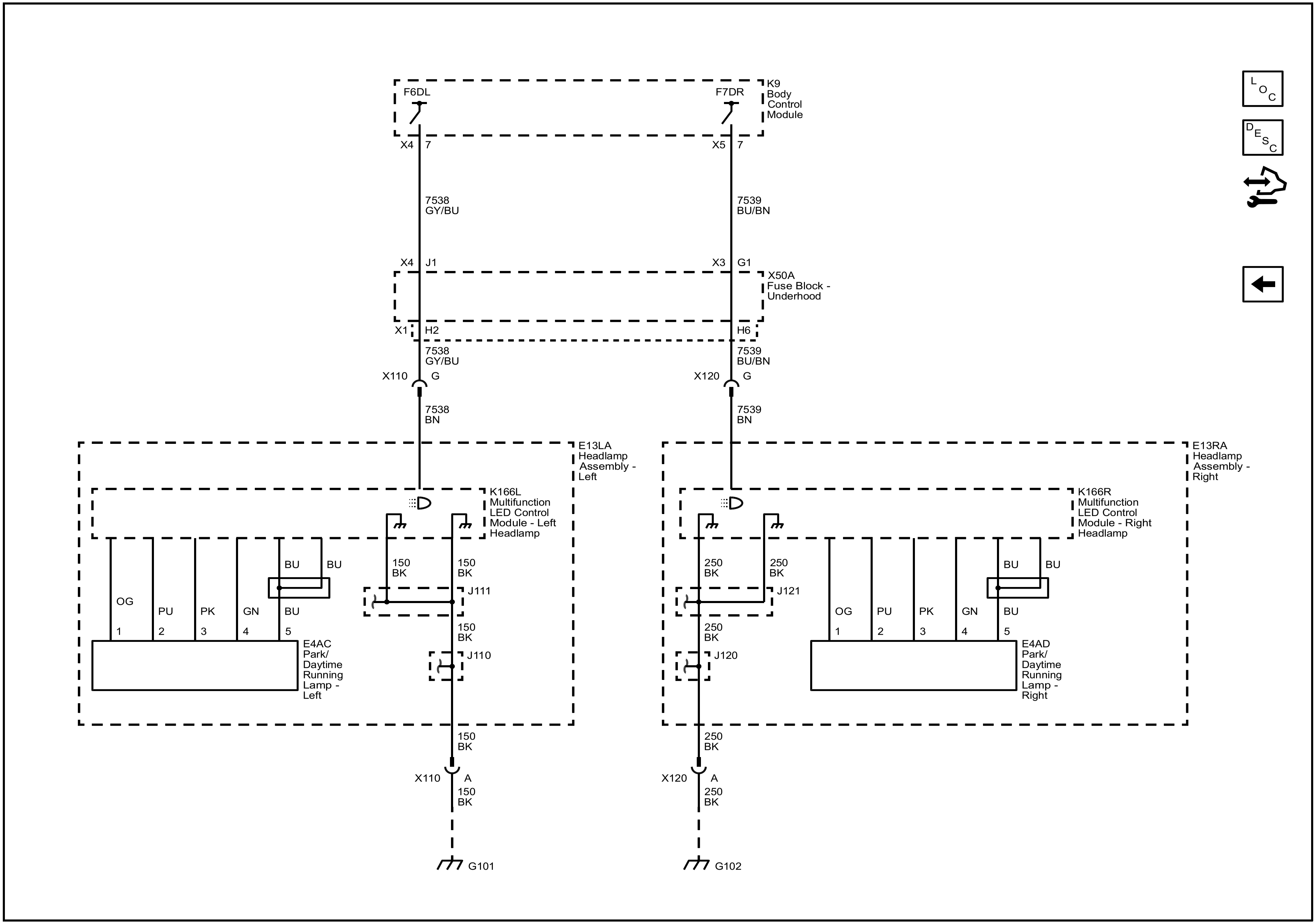

F6DL
F7DR
K9
Body
Control
Module
X4 7
X5 7
7538
GY/BU
7539
BU/BN
X4 J1
X3 G1
X50A
Fuse Block -
Underhood
X1 H2
H6
7538
GY/BU
7539
BU/BN
X110 8
X120 8
7538
GY/BU
7539
BU/BN
E13LA
Headlamp
Assembly -
Left
E13RA
Headlamp
Assembly -
Right
K166L
Multifunction
LED Control
Module - Left
Headlamp
K166R
Multifunction
LED Control
Module - Right
Headlamp
1
150
BK
1
250
BK
E4AC
Park/
Daytime
Running
Lamp -
Left
E4AD
Park/
Daytime
Running
Lamp -
Right
J110
J120
150
BK
250
BK
X110 1
X120 1
150
BK
250
BK
G101
G102
4677022

Headlights/Daytime Running Lights (DRL) Schematics (Daytime Running Lamps (1500/Z88))

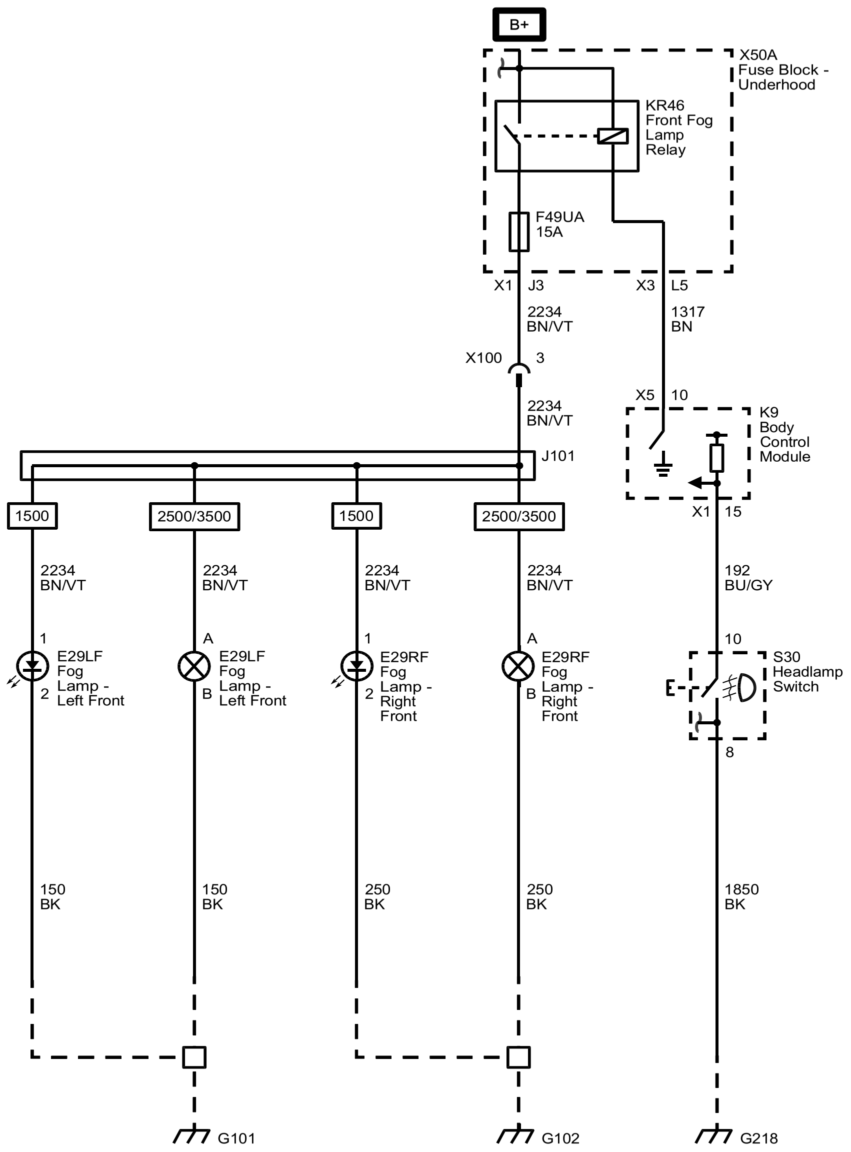

K9
Body
Control
Module
F7DR
X5 7
F6DL
X4 7
7539
BU/BN
7538
GY/BU
X50A
Fuse Block -
Underhood
X3 G1
X4 J1
H6
H2
X1
8
X120
X110
E13RA
Headlamp
Assembly -
Right
E13LA
Headlamp
Assembly -
Left
K166R
Multifunction
LED Control
Module - Right
Headlamp
K166L
Multifunction
LED Control
Module - Left
Headlamp
E4AD
Park/
Daytime
Running
Lamp -
Right
E4AC
Park/
Daytime
Running
Lamp -
Left
250
BK
150
BK
J120
J110
1
G102
G101

4677026

Headlights/Daytime Running Lights (DRL) Schematics (Daytime Running Lamps (2500/3500 with Z88 and SLT))

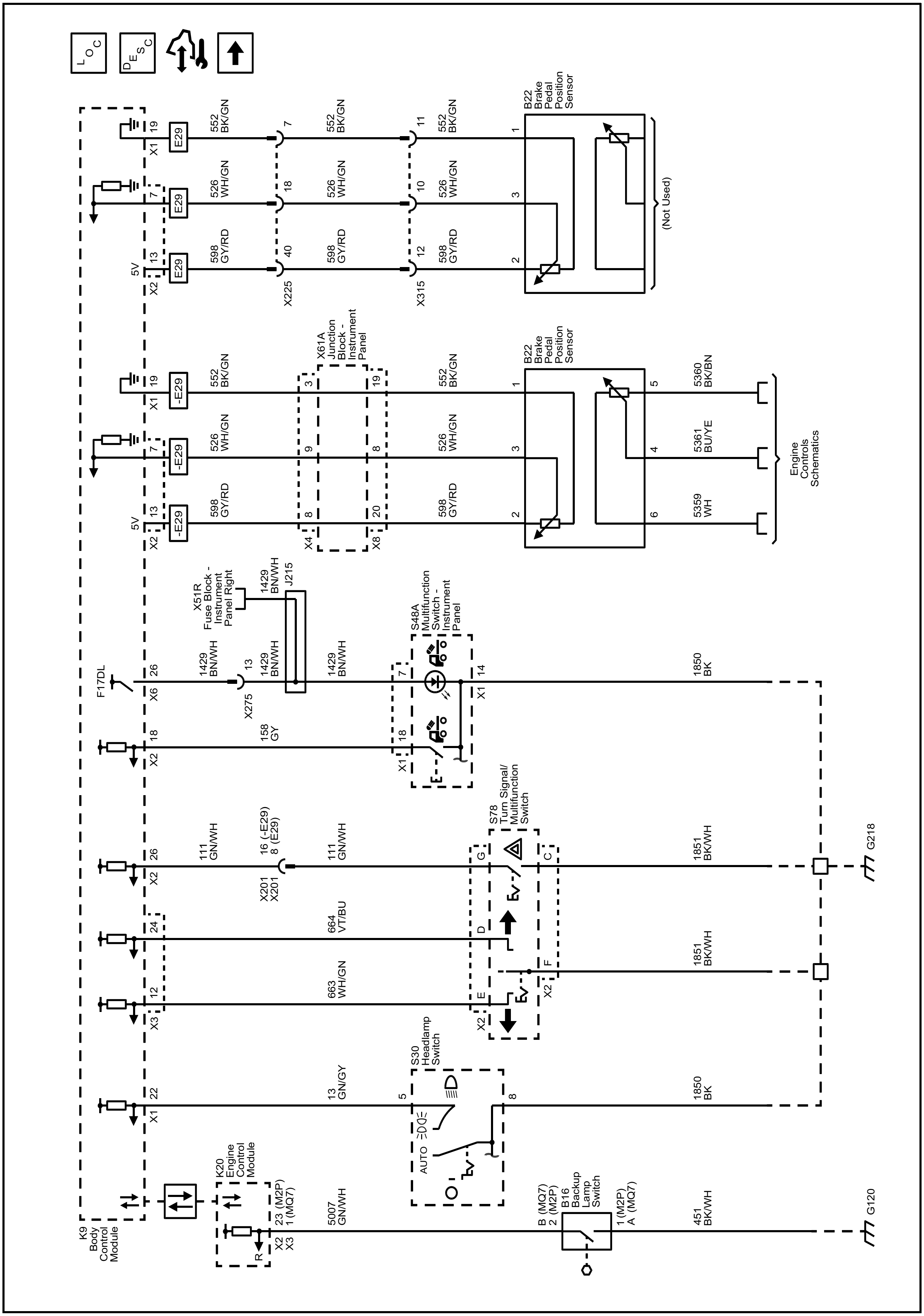

F6DL
F7DR
K9
Body
Control
Module
X4 7
X5 7
7538
GY/BU
7539
BU/BN
X4 J1
X3 G1
X50A
Fuse Block -
Underhood
X1 H2
H6
7538
GY/BU
7539
BU/BN
X110 G
X120 G
7538
BN
7539
BN
E13LA
Headlamp
Assembly -
Left
K166L
Multifunction
LED Control
Module - Left
Headlamp
150
BK
150
BK
J111
150
BK
J110
OG
PU
PK
GN
BU
BU
BU
1
2
3
4
5
E4AC
Park/
Daytime
Running
Lamp -
Left
E13RA
Headlamp
Assembly -
Right
K166R
Multifunction
LED Control
Module - Right
Headlamp
250
BK
250
BK
J121
250
BK
J120
OG
PU
PK
GN
BU
BU
BU
1
2
3
4
5
E4AD
Park/
Daytime
Running
Lamp -
Right
150
BK
X110 A
150
BK
250
BK
X120 A
250
BK
G101
G102
4677029

Fog Lights Schematics (Fog Lamps (T3U))

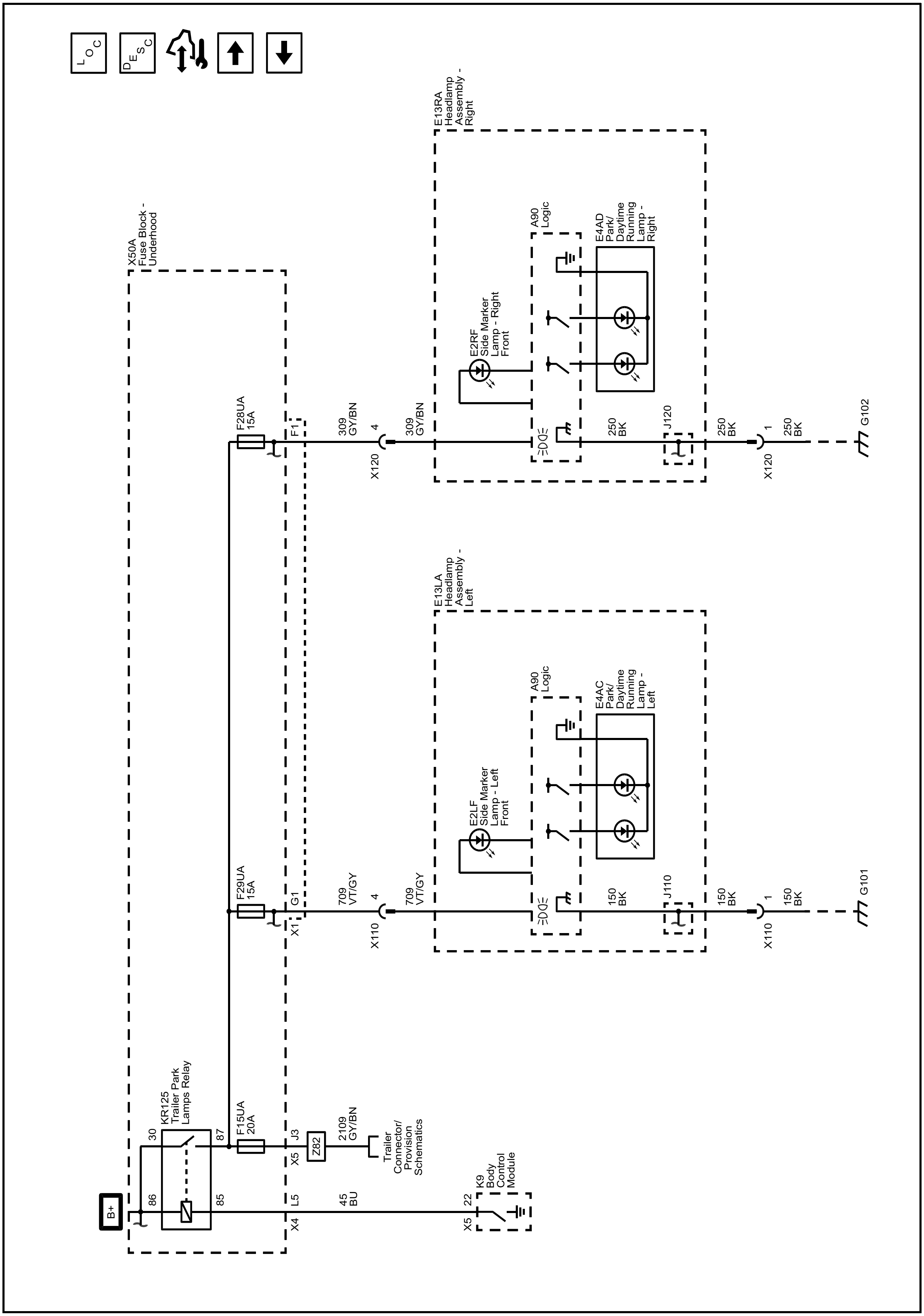

B+
X50A
Fuse Block -
Underhood
KR46
Front Fog
Lamp
Relay
F49UA
15A
X1 J3
X3 L5
2234
BN/VT
1317
BN
X100 3
X5 10
2234
BN/VT
K9
Body
Control
Module
J101
X1 15
1500
2500/3500
1500
2500/3500
2234
BN/VT
2234
BN/VT
2234
BN/VT
2234
BN/VT
192
BU/GY
1
E29LF
Fog
Lamp -
Left Front
2
A
E29LF
Fog
Lamp -
Left Front
B
1
E29RF
Fog
Lamp -
Right
Front
2
A
E29RF
Fog
Lamp -
Right
Front
B
10
S30
Headlamp
Switch
8
150
BK
150
BK
250
BK
250
BK
1850
BK
G101
G102
G218

4677031

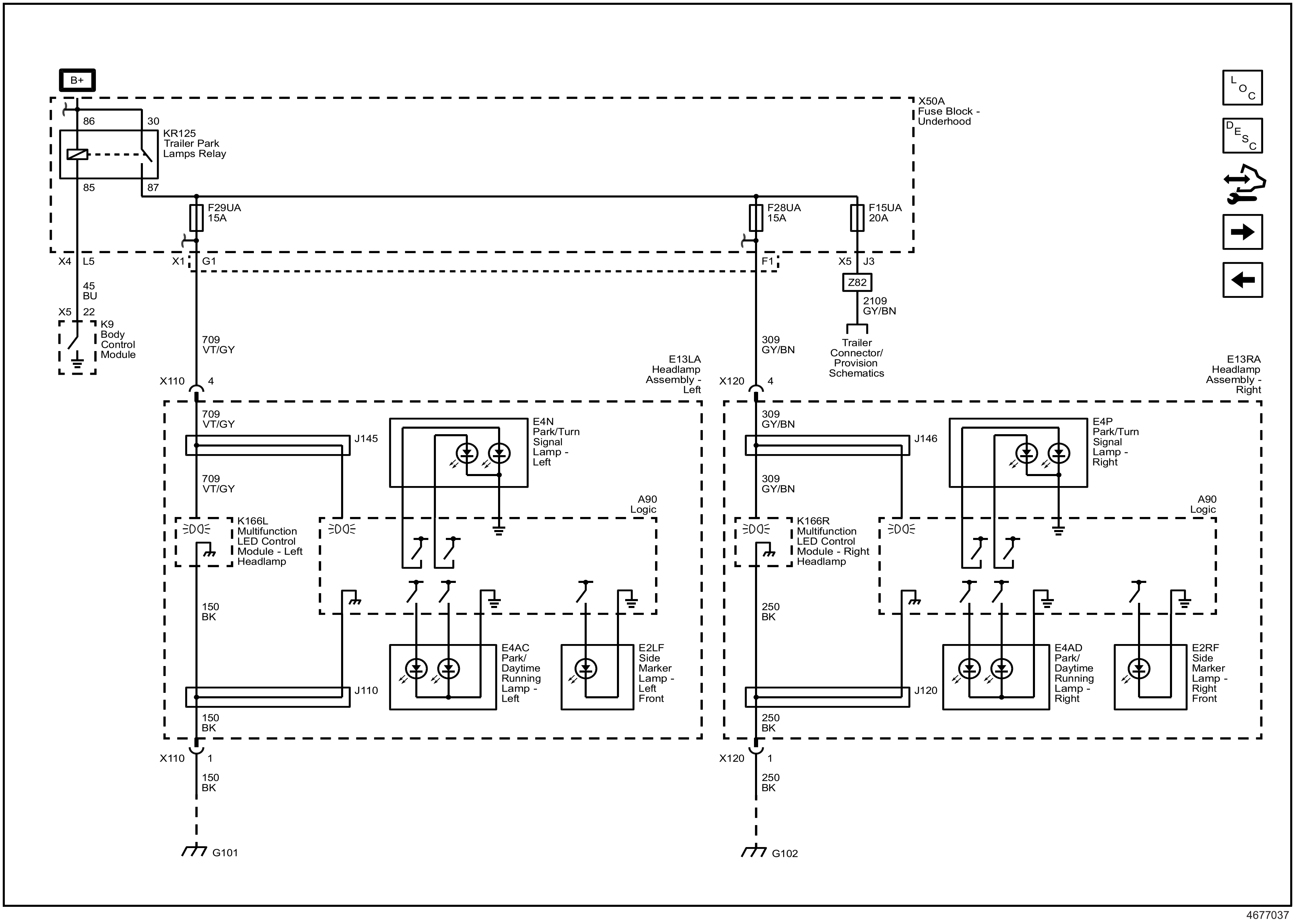
Exterior Lights Schematics (Controls)


4677033
LOC
DESC
K9 Body Control Module
5V
X2 13
X2 7
X1 19
E29
-E29
598 GY/RD
526 WH/GN
552 BK/GN
X225 40 18 7
X315 12 10 11
B22 Brake Pedal Position Sensor
2 3 1
(Not Used)
X61A Junction Block - Instrument Panel
X4 8 9 3
X8 20 8 19
5 4 6
5360 BK/BN
5361 BU/YE
5359 WH
Engine Controls Schematics
F17DL
X6 26
1429 BN/WH
X275 13
X51R Fuse Block - Instrument Panel Right
J215
S48A Multifunction Switch - Instrument Panel
7
X1 14
1850 BK
X2 18
158 GY
X1 18
X2 26
111 GN/WH
X201 16 (-E29)
X201 8 (E29)
S78 Turn Signal/ Multifunction Switch
G C
1851 BK/WH
G218
24
664 VT/BU
D
F
X3 12
663 WH/GN
E
X2
S30 Headlamp Switch
X1 22
13 GN/GY
5 8
AUTO
K20 Engine Control Module
X2 23 (M2P)
X3 1 (MQ7)
R
5007 GN/WH
B (MQ7)
2 (M2P)
B16 Backup Lamp Switch
1 (M2P)
A (MQ7)
451 BK/WH
G120

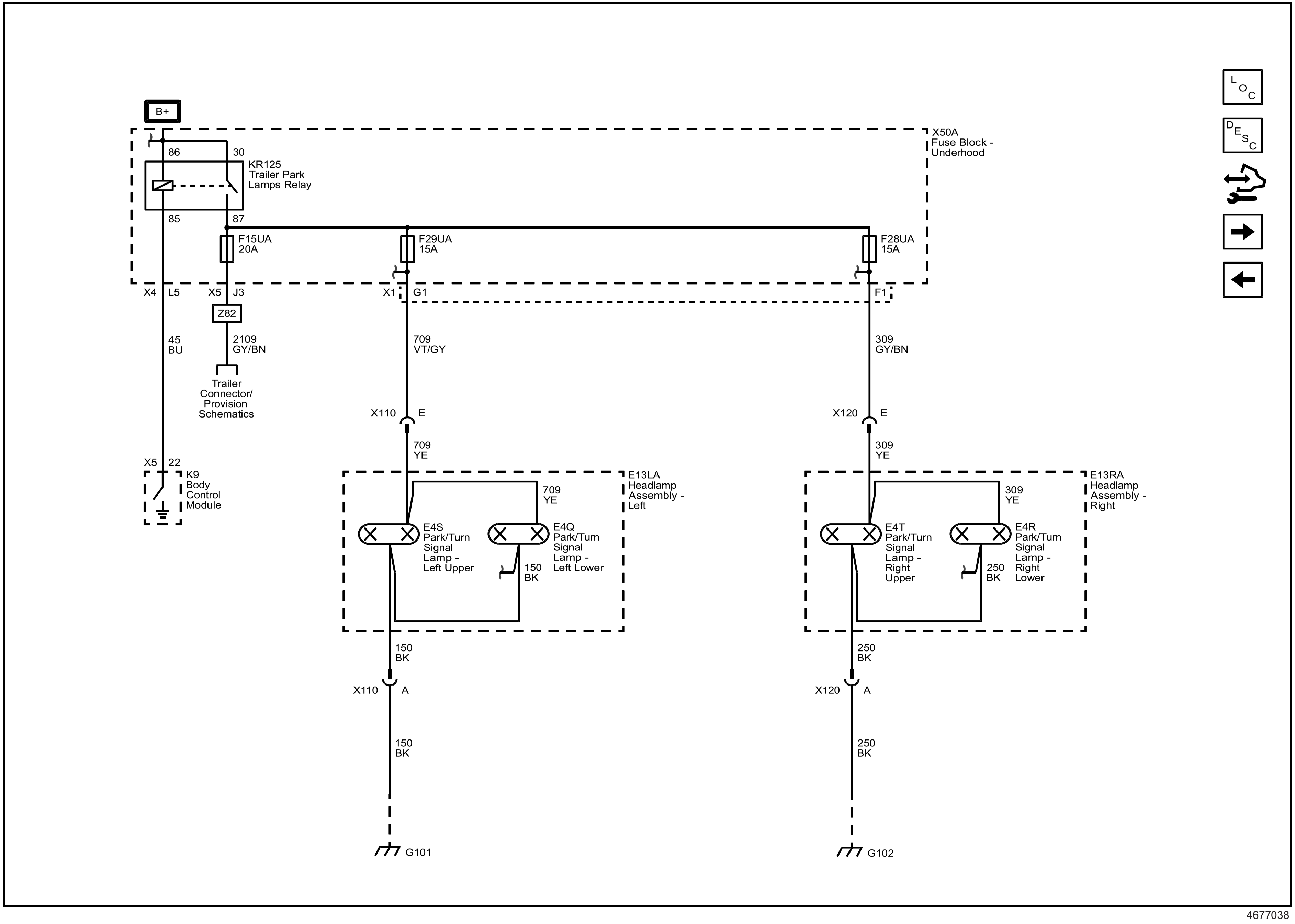
Exterior Lights Schematics (Park Lamps (1500 with X88 with T4F))


LOC
DESC
B+
X50A Fuse Block - Underhood
KR125 Trailer Park Lamps Relay
30
86
87
85
F15UA 20A
F29UA 15A
F28UA 15A
X4
L5
X5
J3
X1
G1
F1
Z82
2109 GY/BN
Trailer Connector/ Provision Schematics
45 BU
22
X5
K9 Body Control Module
709 VT/GY
4
X110
309 GY/BN
X120
E13LA Headlamp Assembly - Left
E13RA Headlamp Assembly - Right
A90 Logic
E2LF Side Marker Lamp - Left Front
E2RF Side Marker Lamp - Right Front
E4AC Park/ Daytime Running Lamp - Left
E4AD Park/ Daytime Running Lamp - Right
150 BK
J110
1
G101
250 BK
J120
G102
4677035

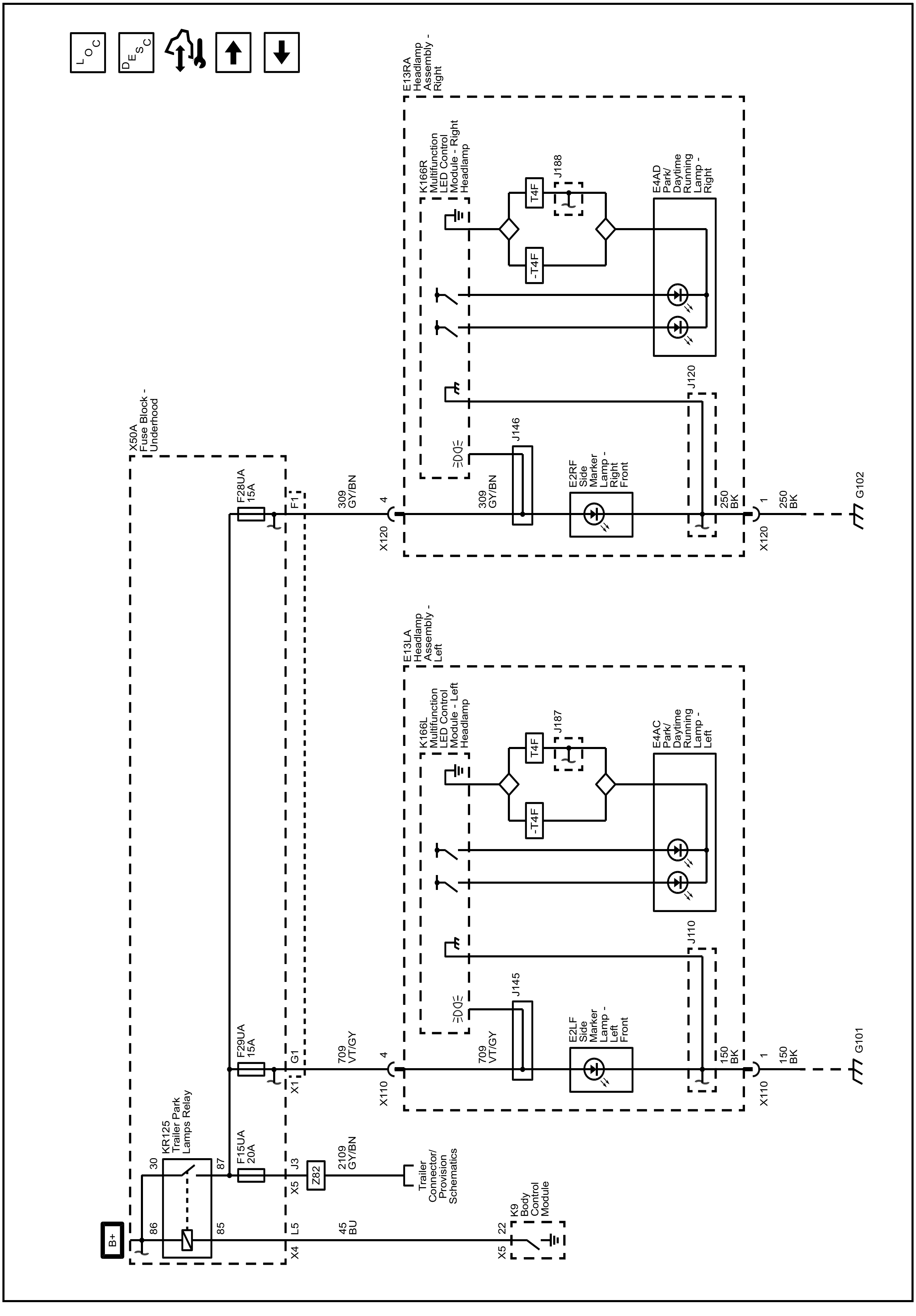
Exterior Lights Schematics (Park Lamps (1500 with X88 without T4F))


B+
X50A Fuse Block - Underhood
86
30
KR125 Trailer Park Lamps Relay
85
87
F29UA 15A
F28UA 15A
F15UA 20A
X4 L5
X1 G1
F1
X5 J3
Z82
2109 GY/BN
Trailer Connector/ Provision Schematics
45 BU
X5 22
K9 Body Control Module
709 VT/GY
309 GY/BN
E13LA Headlamp Assembly - Left
E13RA Headlamp Assembly - Right
X110 4
X120 4
J145
J146
E4N Park/Turn Signal Lamp - Left
E4P Park/Turn Signal Lamp - Right
A90 Logic
K166L Multifunction LED Control Module - Left Headlamp
K166R Multifunction LED Control Module - Right Headlamp
150 BK
250 BK
E4AC Park/ Daytime Running Lamp - Left
E2LF Side Marker Lamp - Left Front
E4AD Park/ Daytime Running Lamp - Right
E2RF Side Marker Lamp - Right Front
J110
J120
X110 1
X120 1
G101
G102
L O C
D E S C
4677037

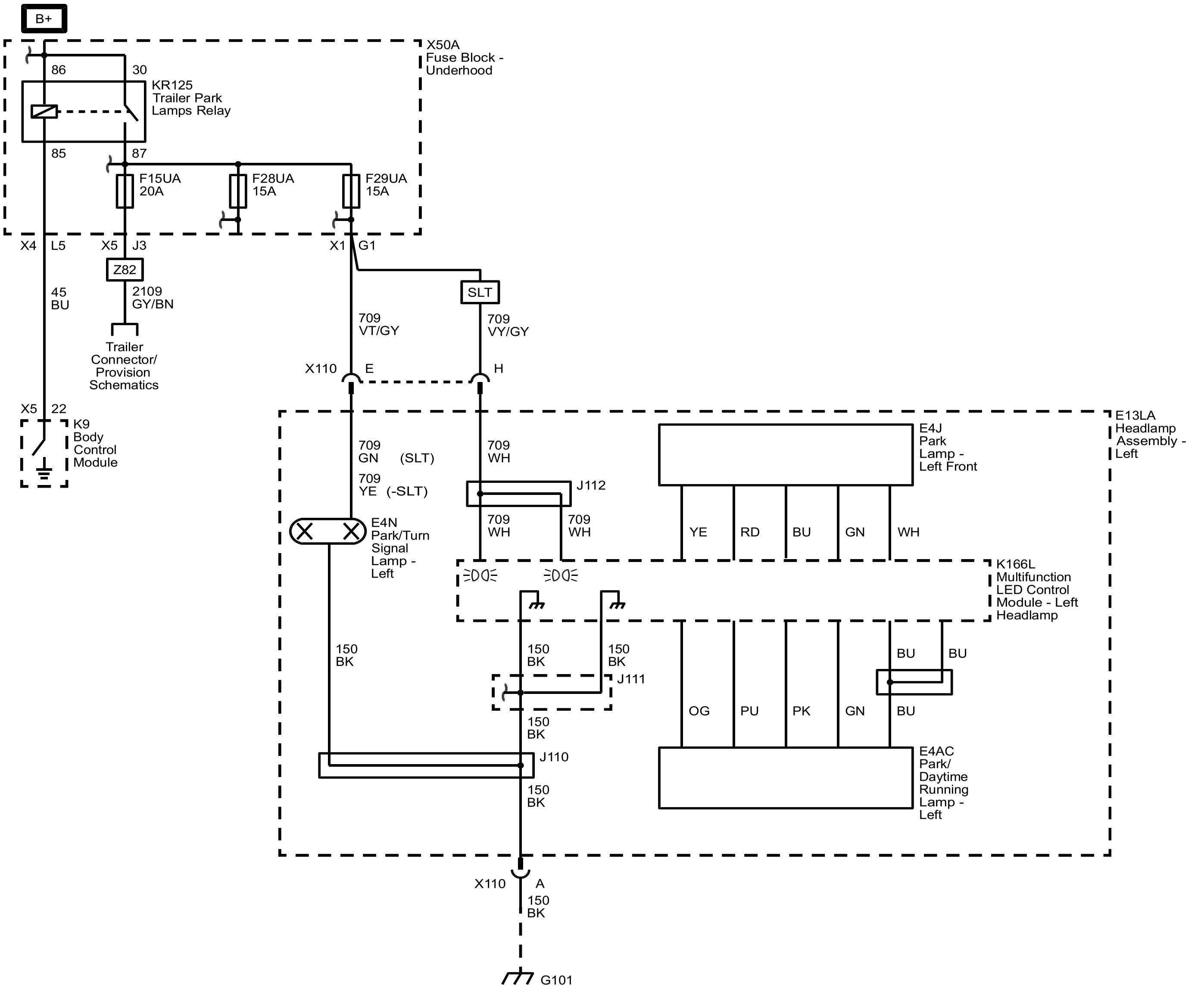
Exterior Lights Schematics (Park Lamps (2500/3500 with Chevrolet/X88))


B+
X50A
Fuse Block -
Underhood
86
30
KR125
Trailer Park
Lamps Relay
85
87
F15UA
20A
F29UA
15A
F28UA
15A
X4
L5
X5
J3
X1
G1
F1
Z82
45
BU
2109
GY/BN
Trailer
Connector/
Provision
Schematics
709
VT/GY
309
GY/BN
X110
E
X120
E
709
YE
309
YE
X5
22
K9
Body
Control
Module
E13LA
Headlamp
Assembly -
Left
E13RA
Headlamp
Assembly -
Right
709
YE
309
YE
E4S
Park/Turn
Signal
Lamp -
Left Upper
E4Q
Park/Turn
Signal
Lamp -
Left Lower
150
BK
E4T
Park/Turn
Signal
Lamp -
Right
Upper
E4R
Park/Turn
Signal
Lamp -
Right
Lower
250
BK
150
BK
X110
A
150
BK
250
BK
X120
A
250
BK
G101
G102
4677038

Exterior Lights Schematics (Park Lamps (1500/Z88))

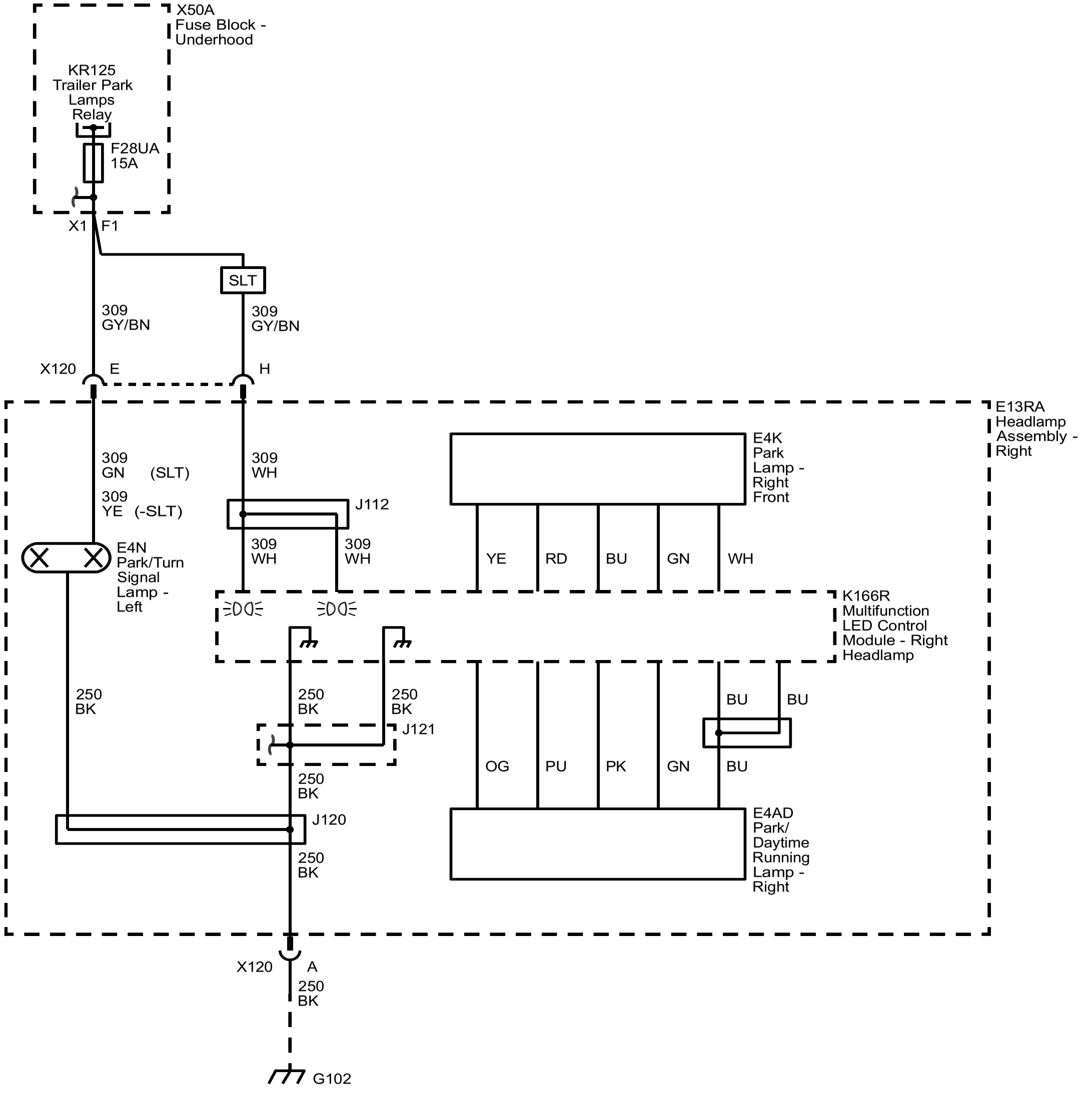

4677041
LOC
DESC
B+
X50A Fuse Block - Underhood
KR125 Trailer Park Lamps Relay
86
85
30
87
F15UA 20A
F29UA 15A
F28UA 15A
X4
L5
X5
J3
X1
G1
F1
Z82
45 BU
2109 GY/BN
Trailer Connector/ Provision Schematics
X5
22
K9 Body Control Module
709 VT/GY
309 GY/BN
4
X110
X120
E13LA Headlamp Assembly - Left
E13RA Headlamp Assembly - Right
K166L Multifunction LED Control Module - Left Headlamp
K166R Multifunction LED Control Module - Right Headlamp
T4F
-T4F
J187
J188
E4AC Park/ Daytime Running Lamp - Left
E4AD Park/ Daytime Running Lamp - Right
J145
J146
E2LF Side Marker Lamp - Left Front
E2RF Side Marker Lamp - Right Front
J110
J120
150 BK
250 BK
1
G101
G102

Exterior Lights Schematics (Park Lamps - Left (2500/3500 with GMC/Z88))


B+
X50A
Fuse Block -
Underhood
86
30
KR125
Trailer Park
Lamps Relay
85
87
F15UA
20A
F28UA
15A
F29UA
15A
X4
L5
X5
J3
X1
G1
Z82
45
BU
2109
GY/BN
Trailer
Connector/
Provision
Schematics
SLT
709
VT/GY
709
VY/GY
X110
E
H
X5
22
K9
Body
Control
Module
709
GN (SLT)
709
YE (-SLT)
709
WH
J112
709
WH
709
WH
E4N
Park/Turn
Signal
Lamp -
Left
E4J
Park
Lamp -
Left Front
YE
RD
BU
GN
WH
K166L
Multifunction
LED Control
Module - Left
Headlamp
E13LA
Headlamp
Assembly -
Left
150
BK
150
BK
150
BK
J111
BU
BU
BU
OG
PU
PK
GN
150
BK
J110
150
BK
E4AC
Park/
Daytime
Running
Lamp -
Left
X110
A
150
BK
G101

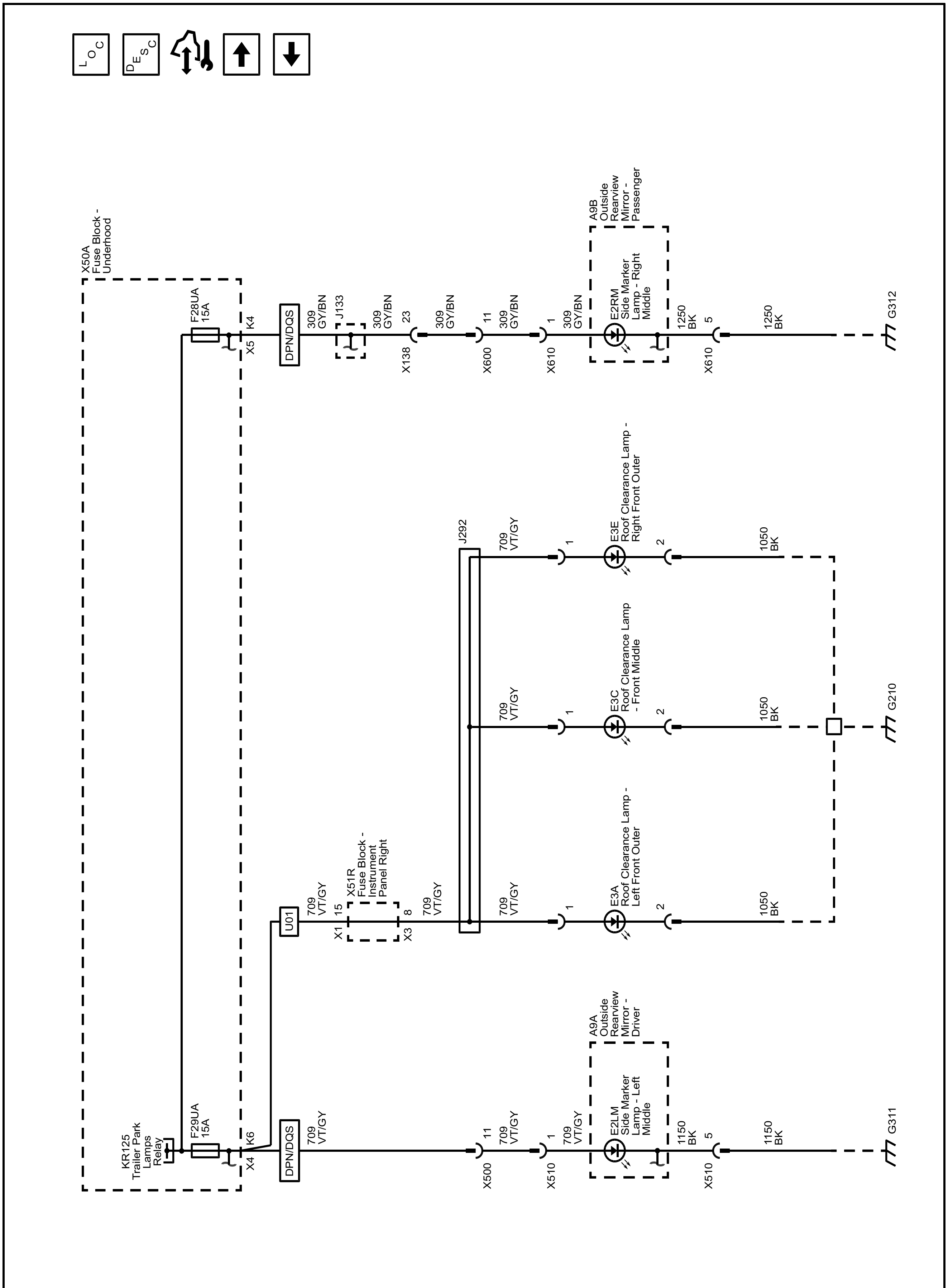
4677044

Exterior Lights Schematics (Park Lamps - Right (2500/3500 with GMC/Z88))

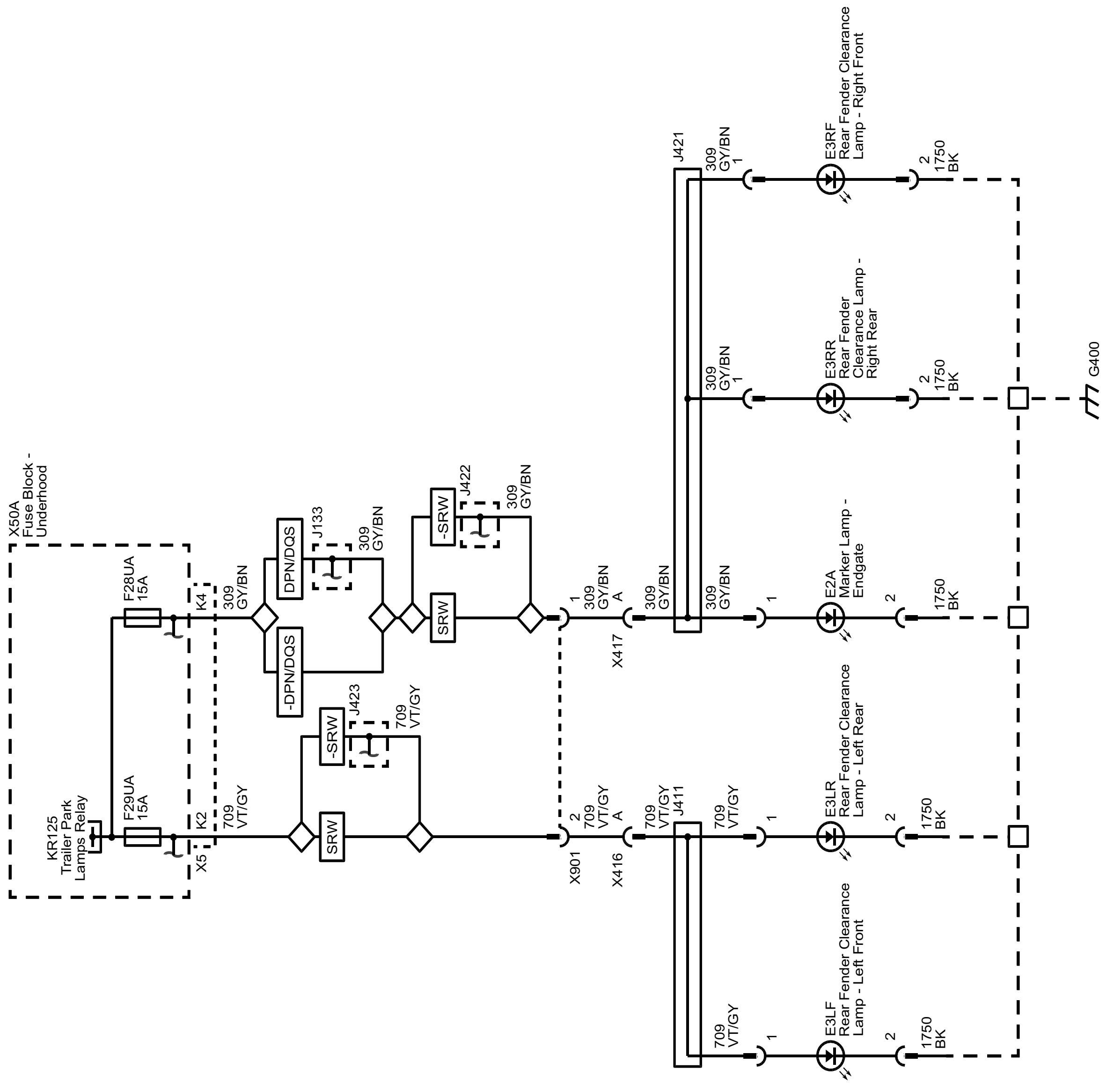

X50A
Fuse Block - Underhood
KR125
Trailer Park Lamps Relay
F28UA
15A
X1
F1
SLT
309
GY/BN
309
GY/BN
X120
E
H
E13RA
Headlamp Assembly - Right
309
GN (SLT)
309
YE (-SLT)
309
WH
J112
309
WH
309
WH
E4N
Park/Turn Signal Lamp - Left
E4K
Park Lamp - Right Front
YE
RD
BU
GN
WH
K166R
Multifunction LED Control Module - Right Headlamp
250
BK
250
BK
250
BK
J121
BU
BU
OG
PU
PK
GN
BU
250
BK
J120
250
BK
E4AD
Park/ Daytime Running Lamp - Right
X120
A
250
BK
G102

4677046

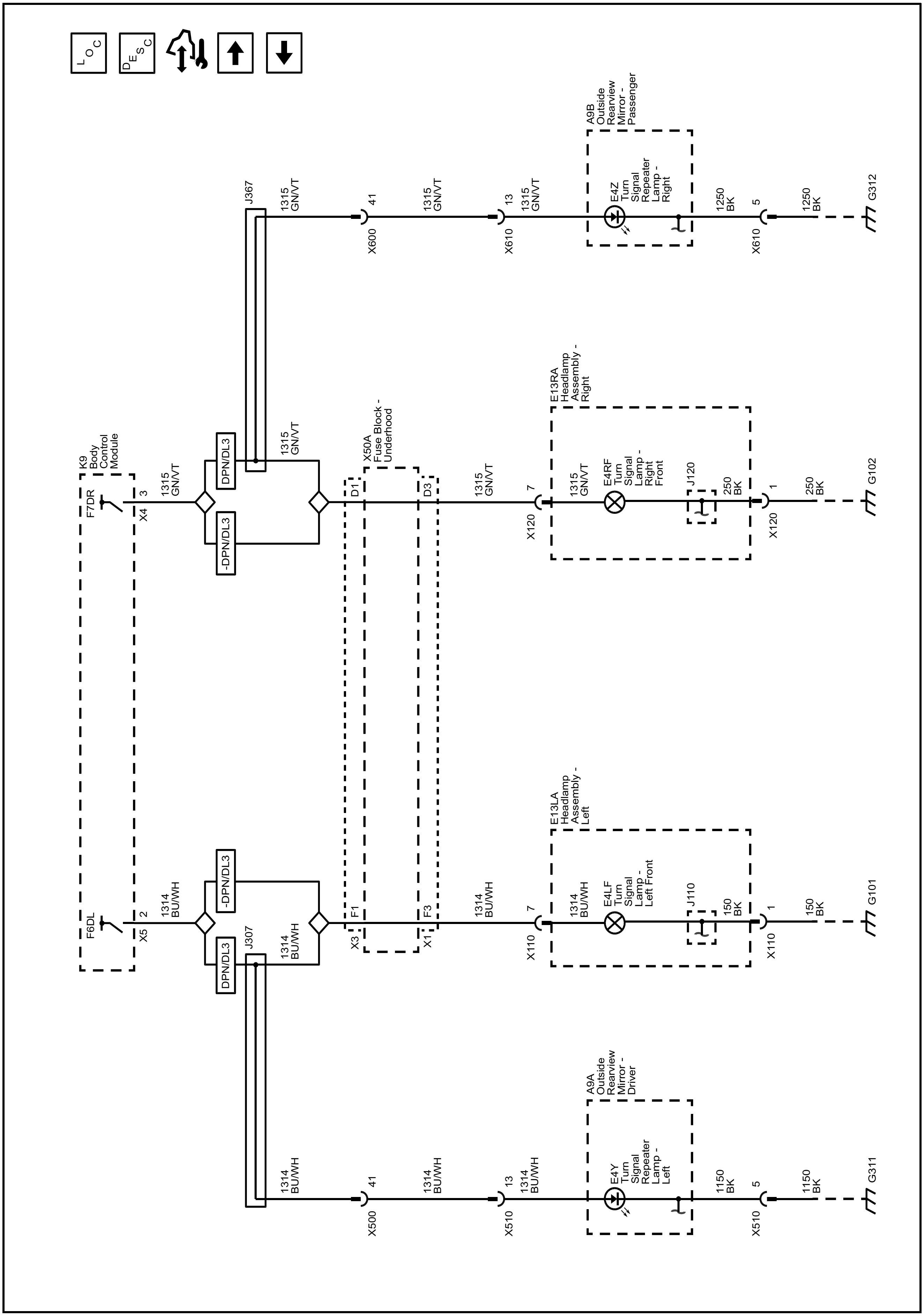
Exterior Lights Schematics (Park Lamps - Mirror (DPN or DQS) and Roof (U01))


4677051
X50A Fuse Block - Underhood
F28UA 15A
K4
X5
DPN/DQS
309 GY/BN
J133
309 GY/BN
23
X138
309 GY/BN
11
X600
309 GY/BN
1
X610
A9B Outside Rearview Mirror - Passenger
E2RM Side Marker Lamp - Right Middle
1250 BK
5
X610
1250 BK
G312
J292
709 VT/GY
1
E3E Roof Clearance Lamp - Right Front Outer
2
1050 BK
709 VT/GY
1
E3C Roof Clearance Lamp - Front Middle
2
1050 BK
G210
U01
709 VT/GY
X1
15
X51R Fuse Block - Instrument Panel Right
8
X3
709 VT/GY
709 VT/GY
1
E3A Roof Clearance Lamp - Left Front Outer
2
1050 BK
KR125 Trailer Park Lamps Relay
F29UA 15A
K6
X4
DPN/DQS
709 VT/GY
11
X500
709 VT/GY
1
X510
709 VT/GY
A9A Outside Rearview Mirror - Driver
E2LM Side Marker Lamp - Left Middle
1150 BK
5
X510
1150 BK
G311

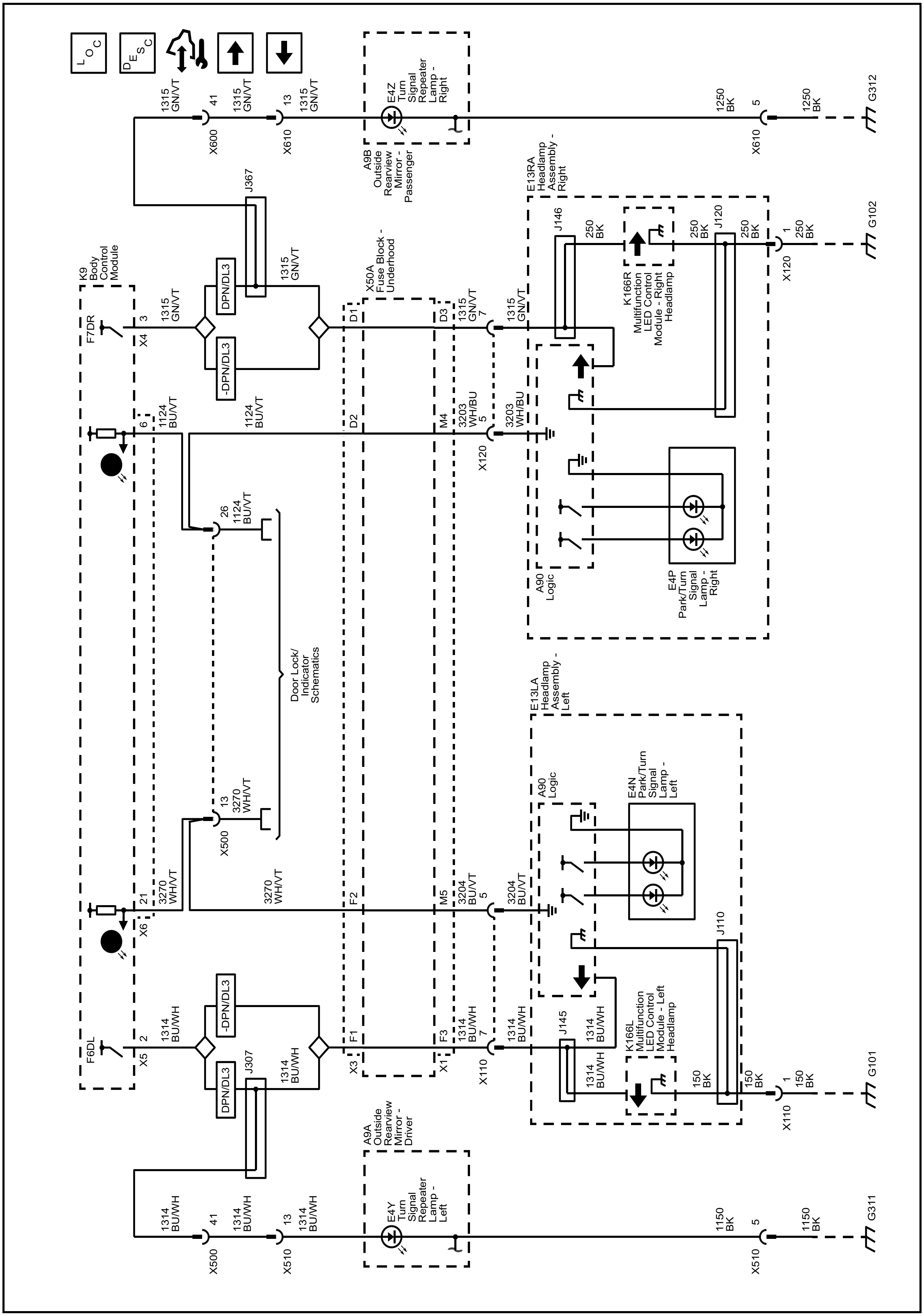
Exterior Lights Schematics (Park Lamps - Rear Clearance (DRW))


4677054
X50A
Fuse Block - Underhood
KR125
Trailer Park Lamps Relay
F28UA
15A
F29UA
15A
K4
K2
X5
309
GY/BN
709
VT/GY
DPN/DQS
-DPN/DQS
J133
SRW
-SRW
J422
J423
X901
X417
X416
J421
J411
1
2
A
E3RF
Rear Fender Clearance Lamp - Right Front
E3RR
Rear Fender Clearance Lamp - Right Rear
E2A
Marker Lamp - Endgate
E3LR
Rear Fender Clearance Lamp - Left Rear
E3LF
Rear Fender Clearance Lamp - Left Front
1750
BK
G400

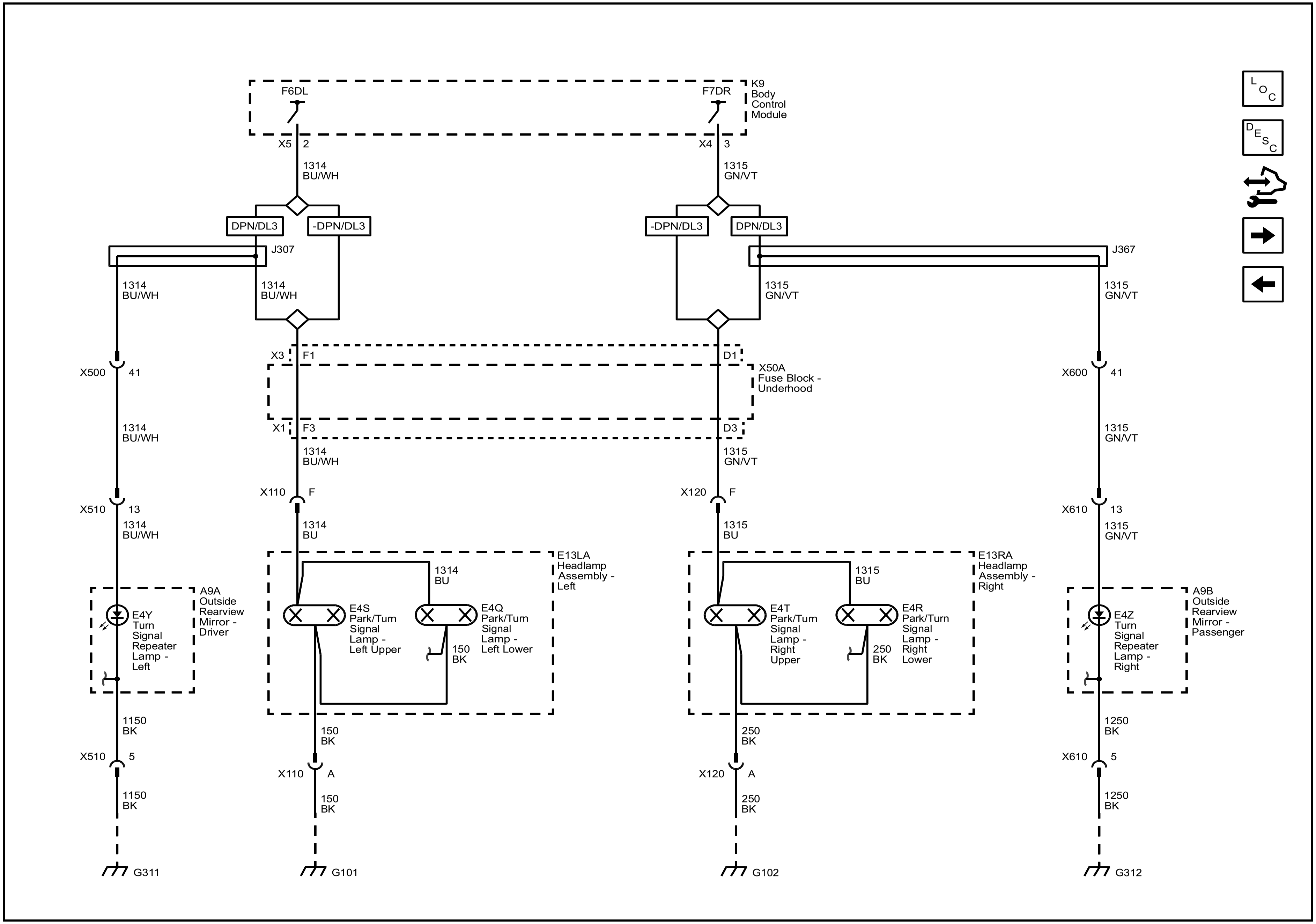
Exterior Lights Schematics (Turn Signal Lamps - Front (1500 with X88 or Z88 with T4F))


4677057
K9 Body Control Module
F7DR
X4 3
F6DL
X5 2
1315 GN/VT
1314 BU/WH
DPN/DL3
-DPN/DL3
J367
J307
X50A Fuse Block - Underhood
D1
D3
F1
F3
X3
X1
X600 41
X500 41
X610 13
X510 13
X610 5
X510 5
X120 7
X120 1
X110 7
X110 1
A9B Outside Rearview Mirror - Passenger
E4Z Turn Signal Repeater Lamp - Right
A9A Outside Rearview Mirror - Driver
E4Y Turn Signal Repeater Lamp - Left
E13RA Headlamp Assembly - Right
E4RF Turn Signal Lamp - Right Front
J120
E13LA Headlamp Assembly - Left
E4LF Turn Signal Lamp - Left Front
J110
1250 BK
1150 BK
250 BK
150 BK
G312
G311
G102
G101

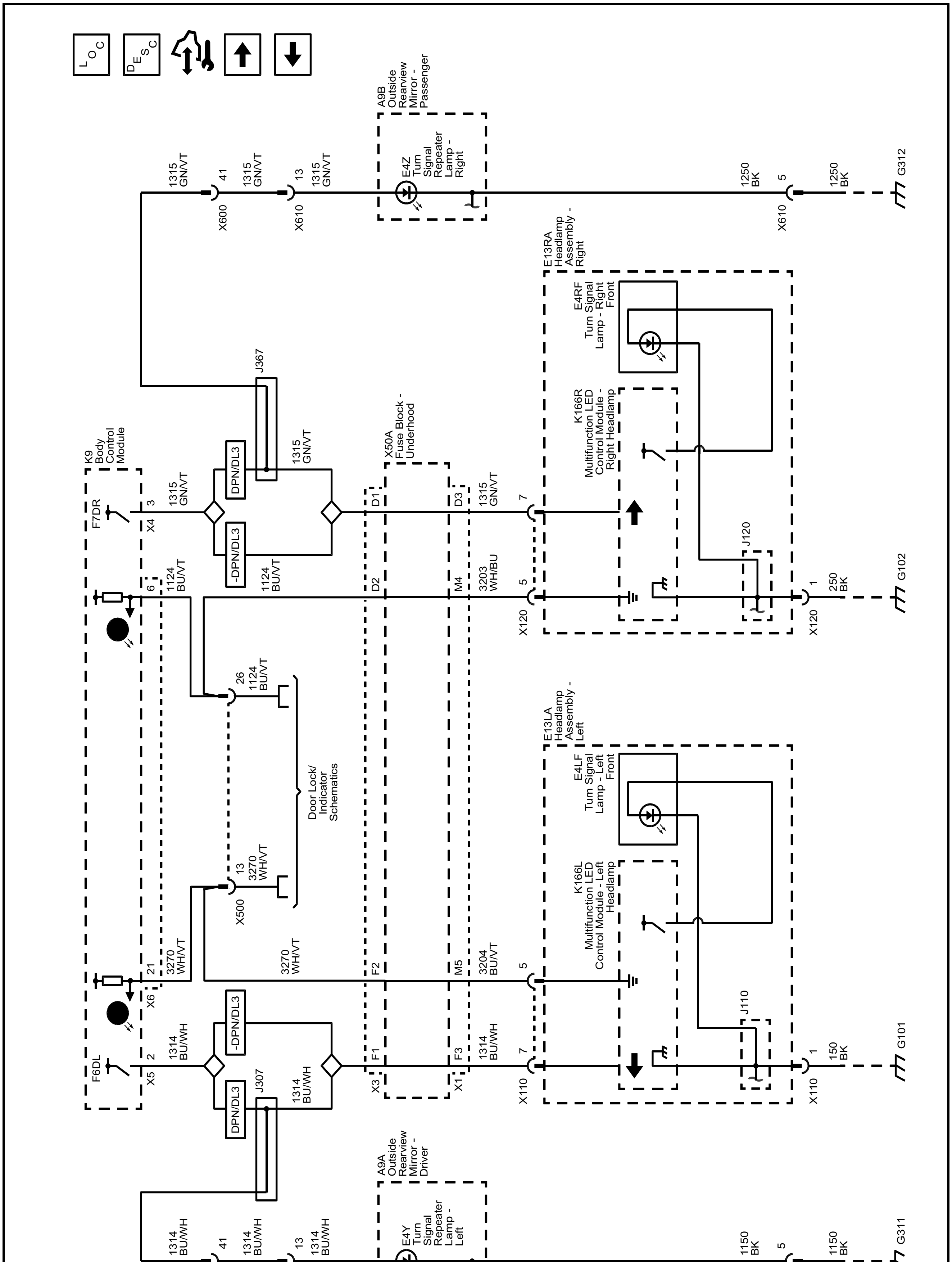
Exterior Lights Schematics (Turn Signal Lamps - Front (1500 with X88 without T4F))


L O C
D E S C
4677060
K9 Body Control Module
F7DR
X4
3
1315 GN/VT
F6DL
X5
2
1314 BU/WH
X6
21
3270 WH/VT
6
1124 BU/VT
DPN/DL3
-DPN/DL3
J367
J307
X600
41
X610
13
X500
41
X510
13
A9B Outside Rearview Mirror - Passenger
E4Z Turn Signal Repeater Lamp - Right
A9A Outside Rearview Mirror - Driver
E4Y Turn Signal Repeater Lamp - Left
1250 BK
5
G312
1150 BK
G311
X50A Fuse Block - Underhood
D1
D3
D2
M4
F2
M5
F1
F3
X3
X1
X120
7
5
3203 WH/BU
X110
3204 BU/VT
26
1124 BU/VT
X500
13
3270 WH/VT
Door Lock/ Indicator Schematics
E13RA Headlamp Assembly - Right
J146
250 BK
K166R Multifunction LED Control Module - Right Headlamp
J120
1
G102
A90 Logic
E4P Park/Turn Signal Lamp - Right
E13LA Headlamp Assembly - Left
A90 Logic
E4N Park/Turn Signal Lamp - Left
J145
K166L Multifunction LED Control Module - Left Headlamp
J110
150 BK
1
G101

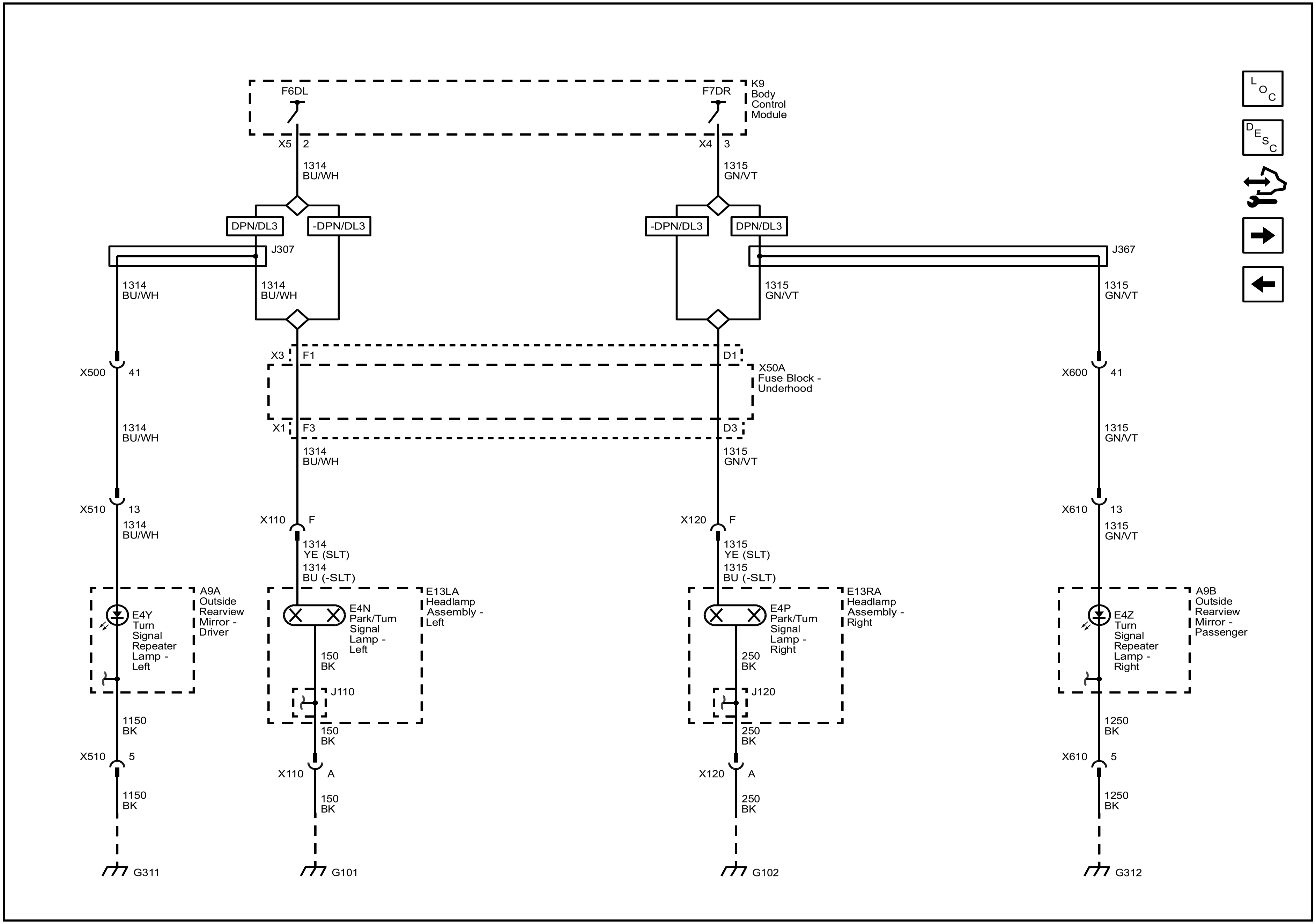
Exterior Lights Schematics (Turn Signal Lamps - Front (2500/3500 with Chevrolet/X88))


K9
Body
Control
Module
F6DL
F7DR
X5 2
X4 3
1314
BU/WH
1315
GN/VT
DPN/DL3
-DPN/DL3
-DPN/DL3
DPN/DL3
J307
J367
1314
BU/WH
1314
BU/WH
1315
GN/VT
1315
GN/VT
X3 F1
D1
X50A
Fuse Block -
Underhood
X1 F3
D3
X500 41
X600 41
1314
BU/WH
1315
GN/VT
1314
BU/WH
1315
GN/VT
X110 F
X120 F
X510 13
X610 13
1314
BU/WH
1314
BU
1315
BU
1315
GN/VT
E13LA
Headlamp
Assembly -
Left
E13RA
Headlamp
Assembly -
Right
1314
BU
1315
BU
A9A
Outside
Rearview
Mirror -
Driver
E4Y
Turn
Signal
Repeater
Lamp -
Left
E4S
Park/Turn
Signal
Lamp -
Left Upper
E4Q
Park/Turn
Signal
Lamp -
Left Lower
150
BK
E4T
Park/Turn
Signal
Lamp -
Right
Upper
E4R
Park/Turn
Signal
Lamp -
Right
Lower
250
BK
E4Z
Turn
Signal
Repeater
Lamp -
Right
A9B
Outside
Rearview
Mirror -
Passenger
1150
BK
150
BK
250
BK
1250
BK
X510 5
X110 A
X120 A
X610 5
1150
BK
150
BK
250
BK
1250
BK
G311
G101
G102
G312
4677064

Exterior Lights Schematics (Turn Signal Lamps - Front (1500 with Z88 without T4F))

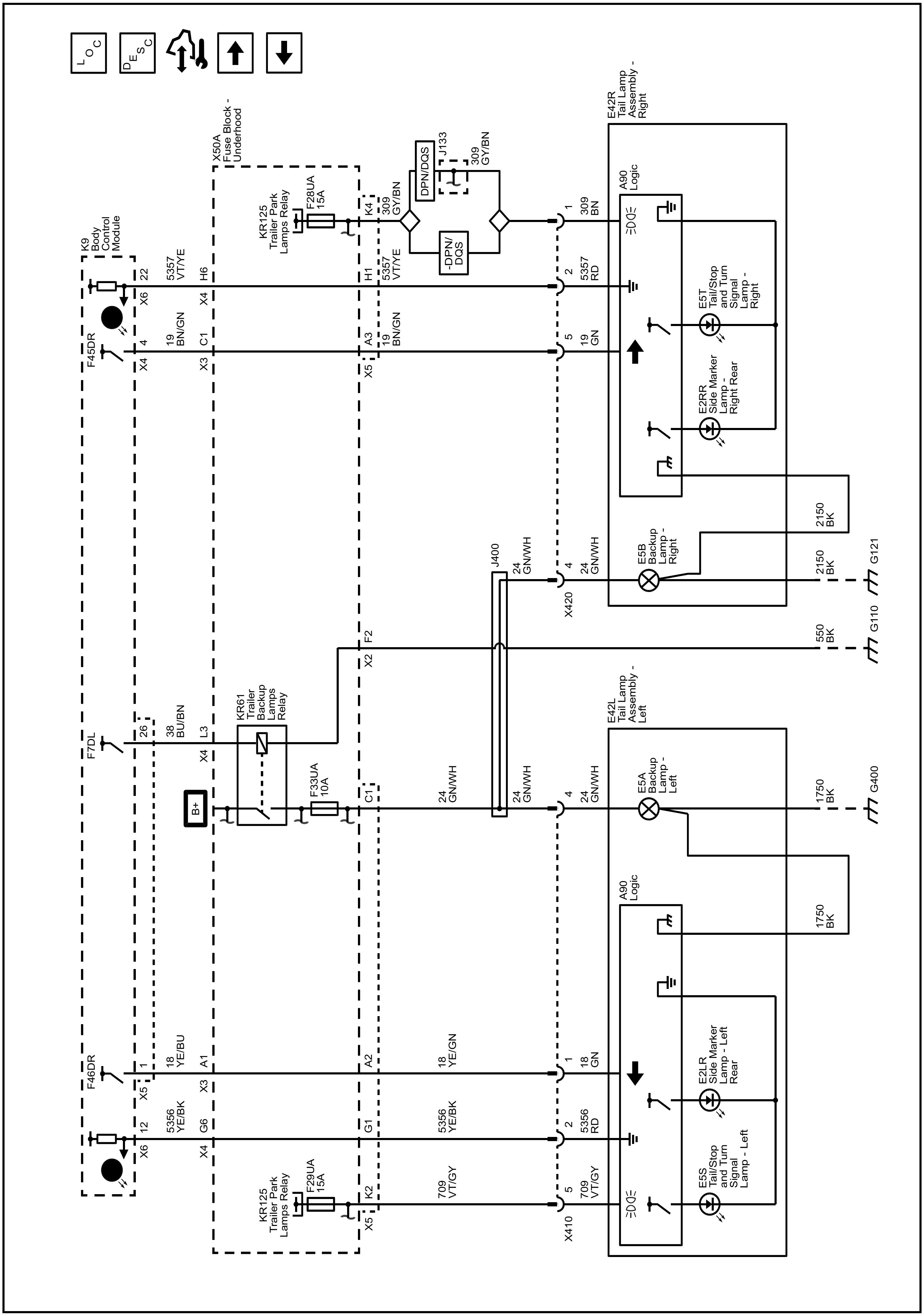

4677068
LOC
DESC
K9 Body Control Module
F7DR
F6DL
X4 3
X5 2
X6 6
X6 21
1315 GN/VT
1314 BU/WH
1124 BU/VT
3270 WH/VT
DPN/DL3
-DPN/DL3
J367
J307
X500 26
X500 13
Door Lock/ Indicator Schematics
X50A Fuse Block - Underhood
D1
D2
D3
M4
M5
F1
F2
F3
X3
X1
3203 WH/BU
3204 BU/VT
X120 7
X120 5
X120 1
X110 7
X110 5
X110 1
X600 41
X610 13
X610 5
X500 41
X510 13
X510 5
A9B Outside Rearview Mirror - Passenger
E4Z Turn Signal Repeater Lamp - Right
A9A Outside Rearview Mirror - Driver
E4Y Turn Signal Repeater Lamp - Left
1250 BK
1150 BK
250 BK
150 BK
G312
G311
G102
G101
E13RA Headlamp Assembly - Right
E4RF Turn Signal Lamp - Right Front
K166R Multifunction LED Control Module - Right Headlamp
J120
E13LA Headlamp Assembly - Left
E4LF Turn Signal Lamp - Left Front
K166L Multifunction LED Control Module - Left Headlamp
J110

Exterior Lights Schematics (Turn Signal Lamps - Front (2500/3500 with GMC/Z88))

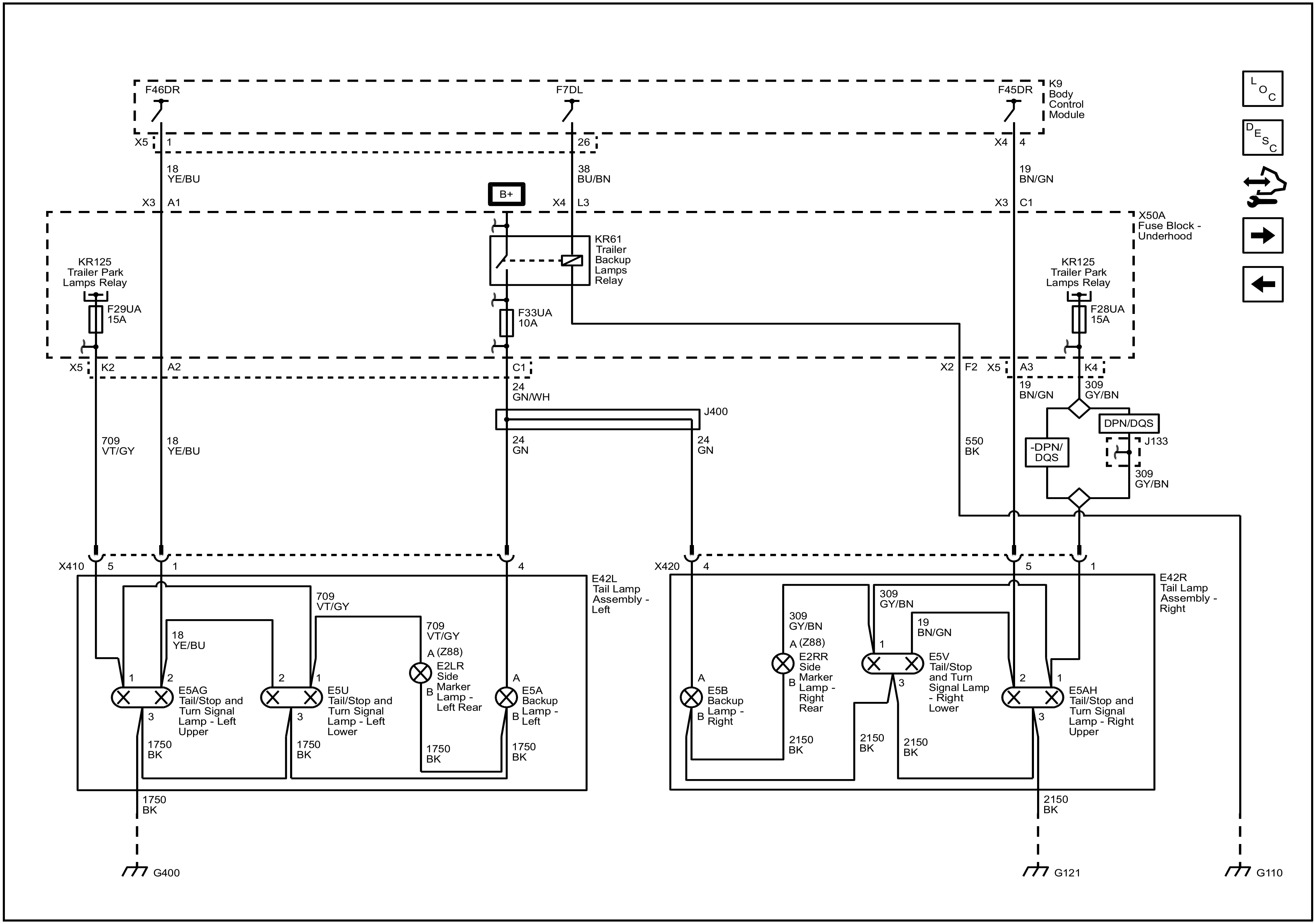

K9
Body
Control
Module
F6DL
F7DR
X5 2
X4 3
1314
BU/WH
1315
GN/VT
DPN/DL3
-DPN/DL3
J307
J367
X3 F1
D1
X50A
Fuse Block -
Underhood
X1 F3
D3
X500 41
X600 41
X510 13
X610 13
X110 F
X120 F
1314
YE (SLT)
1314
BU (-SLT)
1315
YE (SLT)
1315
BU (-SLT)
E4Y
Turn
Signal
Repeater
Lamp -
Left
A9A
Outside
Rearview
Mirror -
Driver
E4N
Park/Turn
Signal
Lamp -
Left
E13LA
Headlamp
Assembly -
Left
E4P
Park/Turn
Signal
Lamp -
Right
E13RA
Headlamp
Assembly -
Right
E4Z
Turn
Signal
Repeater
Lamp -
Right
A9B
Outside
Rearview
Mirror -
Passenger
150
BK
J110
250
BK
J120
1150
BK
1250
BK
X510 5
X610 5
X110 A
X120 A
G311
G101
G102
G312
L O C
D E S C

4677073

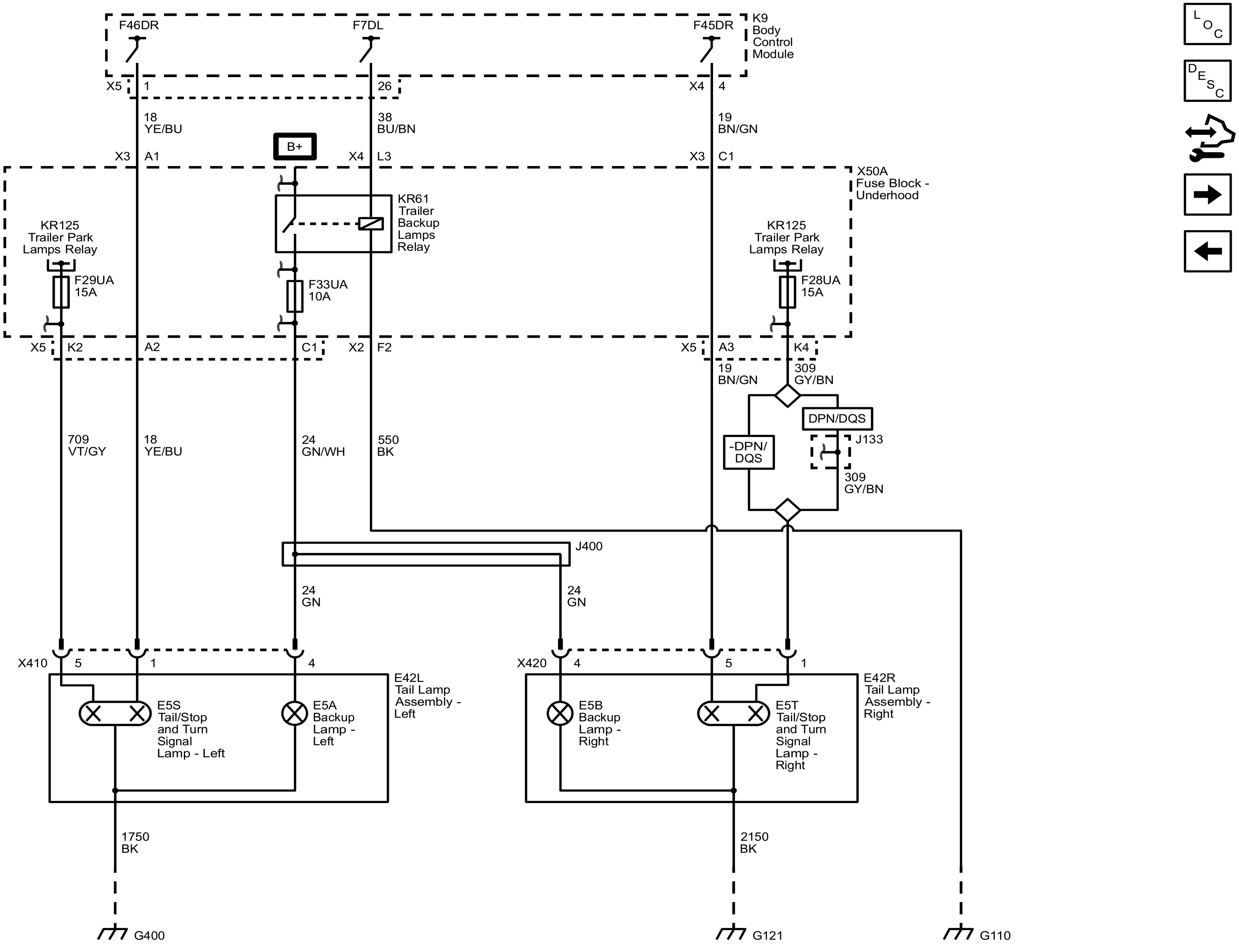
Exterior Lights Schematics (Tail Lamps (LED))


4677076
LOC
DESC
K9 Body Control Module
F45DR
F7DL
F46DR
X6 22
X4 4
26
X5 1
X6 12
5357 VT/YE
19 BN/GN
38 BU/BN
18 YE/BU
5356 YE/BK
X4 H6
X3 C1
X4 L3
X3 A1
X4 G6
X50A Fuse Block - Underhood
KR125 Trailer Park Lamps Relay
F28UA 15A
KR61 Trailer Backup Lamps Relay
B+
F33UA 10A
F29UA 15A
X4 309 GY/BN
H1 5357 VT/YE
X5 A3 19 BN/GN
X2 F2
C1 24 GN/WH
A2 18 YE/GN
G1 5356 YE/BK
X5 K2 709 VT/GY
DPN/DQS
J133
309 GY/BN
-DPN/DQS
J400
24 GN/WH
X420
X410
1 309 BN
2 5357 RD
5 19 GN
4 24 GN/WH
1 18 GN
2 5356 RD
5 709 VT/GY
E42R Tail Lamp Assembly - Right
A90 Logic
E5T Tail/Stop and Turn Signal Lamp - Right
E2RR Side Marker Lamp - Right Rear
E5B Backup Lamp - Right
2150 BK
G121
550 BK
G110
E42L Tail Lamp Assembly - Left
E5A Backup Lamp - Left
1750 BK
G400
E2LR Side Marker Lamp - Left Rear
E5S Tail/Stop and Turn Signal Lamp - Left

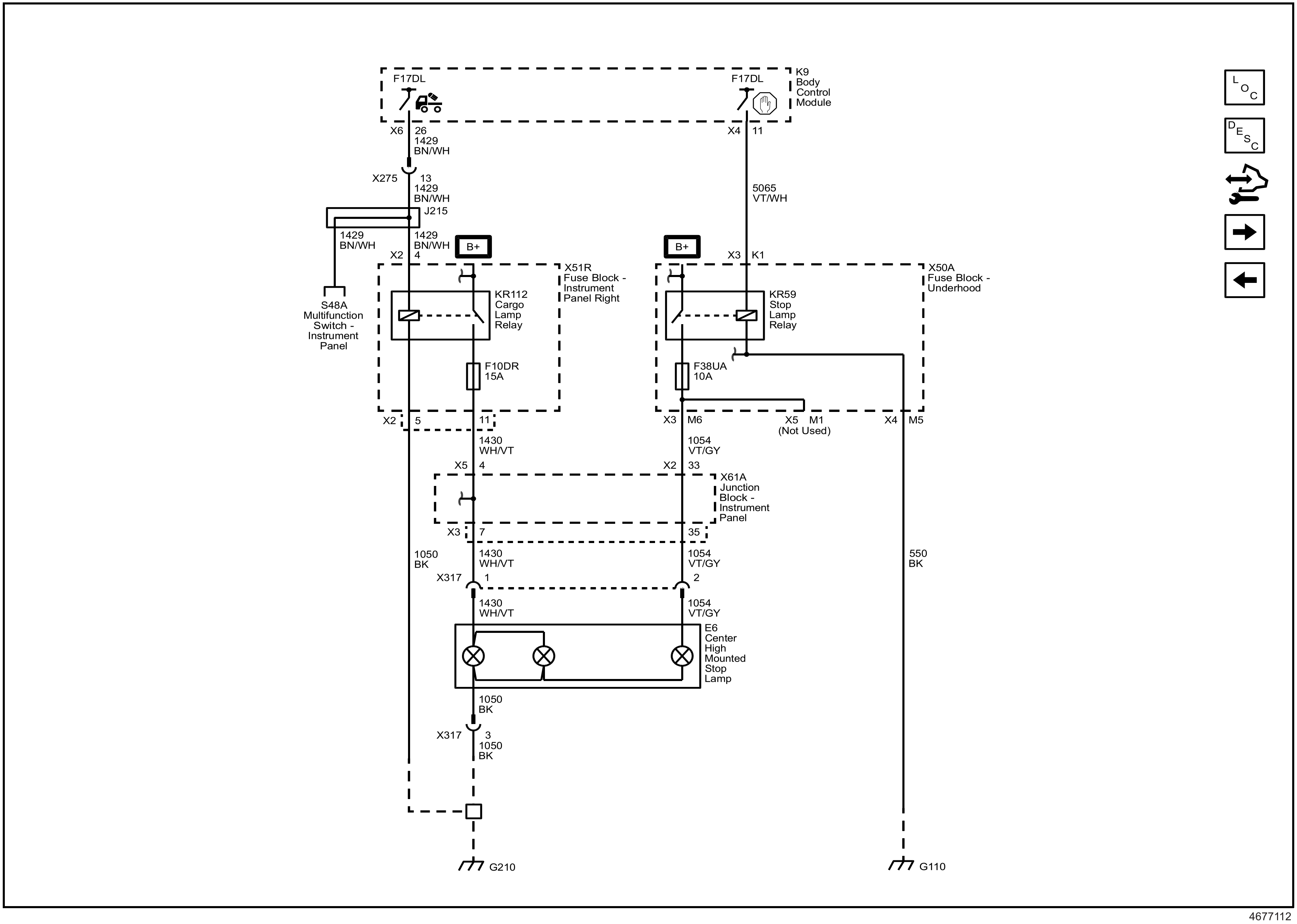
Exterior Lights Schematics (Tail Lamps (without ZW9 or LED))


K9 Body Control Module
F46DR
F7DL
F45DR
X5 1
26
X4 4
18 YE/BU
38 BU/BN
19 BN/GN
B+
X3 A1
X4 L3
X3 C1
X50A Fuse Block - Underhood
KR125 Trailer Park Lamps Relay
F29UA 15A
KR61 Trailer Backup Lamps Relay
F33UA 10A
KR125 Trailer Park Lamps Relay
F28UA 15A
X5 K2
A2
C1
X2 F2
X5 A3
K4
24 GN/WH
J400
709 VT/GY
18 YE/BU
24 GN
24 GN
550 BK
19 BN/GN
309 GY/BN
DPN/DQS
-DPN/ DQS
J133
309 GY/BN
X410 5 1 4
X420 4 5 1
E42L Tail Lamp Assembly - Left
709 VT/GY
18 YE/BU
709 VT/GY
A (Z88)
E2LR Side Marker Lamp - Left Rear
E5AG Tail/Stop and Turn Signal Lamp - Left Upper
E5U Tail/Stop and Turn Signal Lamp - Left Lower
E5A Backup Lamp - Left
1750 BK
1750 BK
1750 BK
1750 BK
1750 BK
E42R Tail Lamp Assembly - Right
309 GY/BN
A (Z88)
E2RR Side Marker Lamp - Right Rear
309 GY/BN
19 BN/GN
E5V Tail/Stop and Turn Signal Lamp - Right Lower
E5AH Tail/Stop and Turn Signal Lamp - Right Upper
E5B Backup Lamp - Right
2150 BK
2150 BK
2150 BK
2150 BK
G400
G121
G110
LOC
DESC
4677078

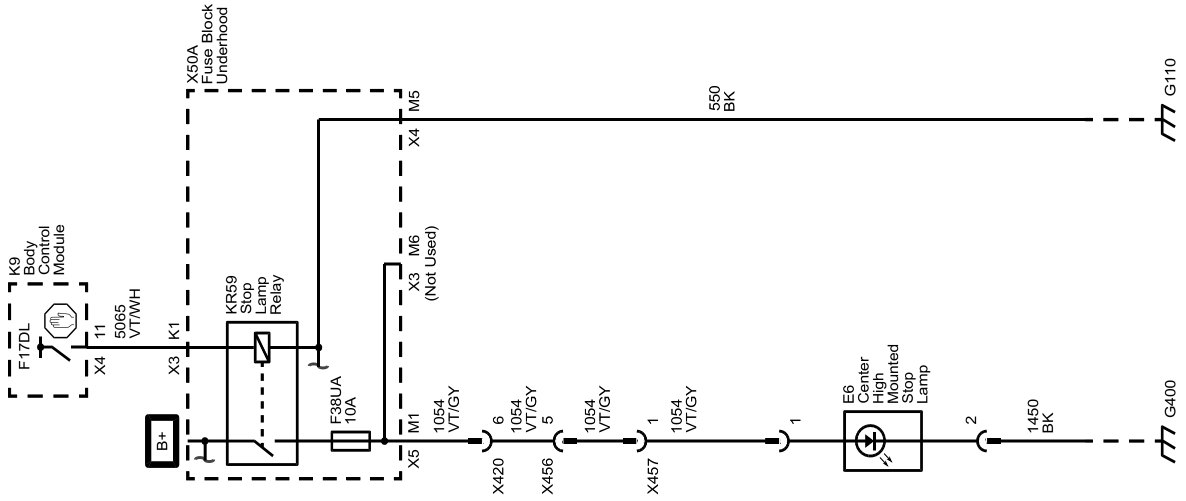
Exterior Lights Schematics (Tail Lamps (ZW9))


F46DR
F7DL
F45DR
K9
Body
Control
Module
X5 1
26
X4 4
18
YE/BU
38
BU/BN
19
BN/GN
B+
X3 A1
X4 L3
X3 C1
X50A
Fuse Block -
Underhood
KR125
Trailer Park
Lamps Relay
F29UA
15A
KR61
Trailer
Backup
Lamps
Relay
F33UA
10A
KR125
Trailer Park
Lamps Relay
F28UA
15A
X5 K2
A2
C1
X2 F2
X5 A3
K4
19
BN/GN
309
GY/BN
DPN/DQS
-DPN/
DQS
J133
309
GY/BN
709
VT/GY
18
YE/BU
24
GN/WH
550
BK
J400
24
GN
24
GN
X410 5
1
4
X420 4
5
1
E5S
Tail/Stop
and Turn
Signal
Lamp - Left
E5A
Backup
Lamp -
Left
E42L
Tail Lamp
Assembly -
Left
E5B
Backup
Lamp -
Right
E5T
Tail/Stop
and Turn
Signal
Lamp -
Right
E42R
Tail Lamp
Assembly -
Right
1750
BK
2150
BK
G400
G121
G110
4677079

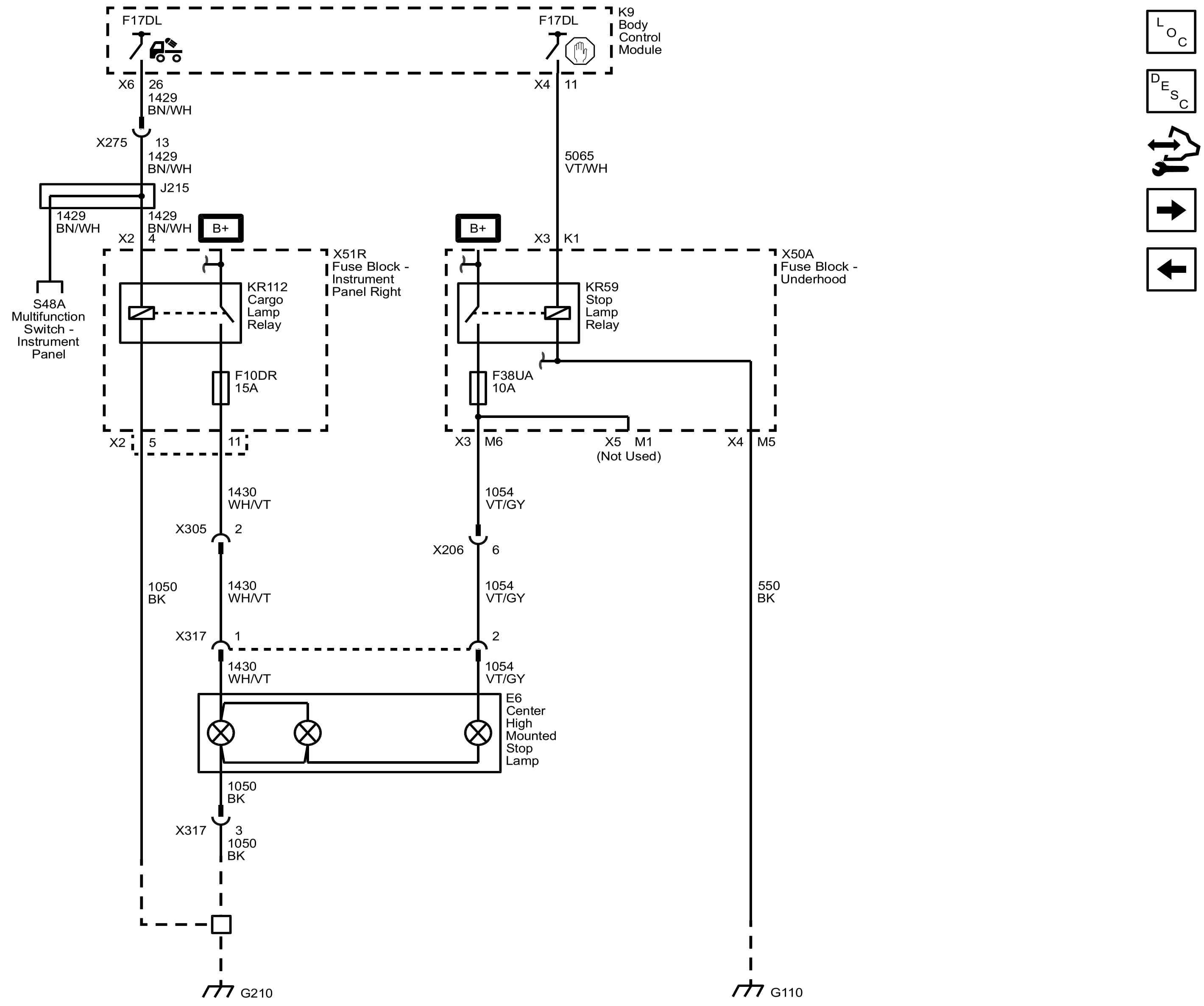
Exterior Lights Schematics (Roof Cargo and Center High Mounted Stop Lamps (except E29 or ZYD))


F17DL
F17DL
K9
Body
Control
Module
X6 26
1429
BN/WH
X4 11
X275 13
1429
BN/WH
J215
5065
VT/WH
1429
BN/WH
1429
BN/WH
X2 4
B+
B+
X3 K1
X51R
Fuse Block -
Instrument
Panel Right
X50A
Fuse Block -
Underhood
S48A
Multifunction
Switch -
Instrument
Panel
KR112
Cargo
Lamp
Relay
KR59
Stop
Lamp
Relay
F10DR
15A
F38UA
10A
X2 5
11
X3 M6
X5 M1
(Not Used)
X4 M5
1430
WH/VT
1054
VT/GY
X5 4
X2 33
X61A
Junction
Block -
Instrument
Panel
X3 7
35
1050
BK
1430
WH/VT
1054
VT/GY
550
BK
X317 1
2
1430
WH/VT
1054
VT/GY
E6
Center
High
Mounted
Stop
Lamp
1050
BK
X317 3
1050
BK
G210
G110
L O C
D E S C
4677112

Exterior Lights Schematics (Center High Mounted Stop Lamps (ZYD))

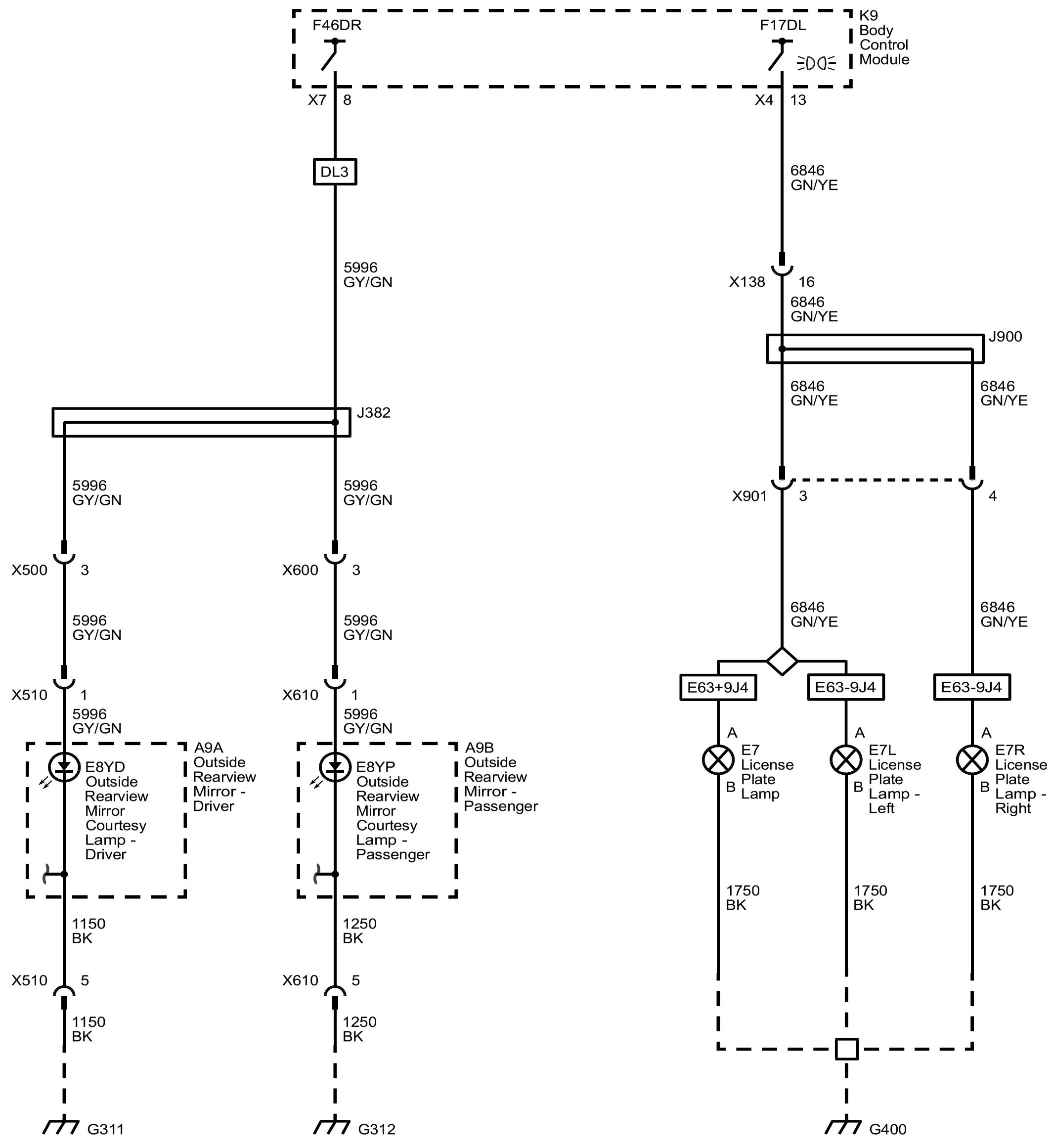

K9
Body
Control
Module
F17DL
X4 11
5065
VT/WH
X3 K1
X50A
Fuse Block -
Underhood
KR59
Stop
Lamp
Relay
B+
F38UA
10A
X5 M1
X3 M6
(Not Used)
X4 M5
550
BK
G110
1054
VT/GY
X420 6
1054
VT/GY
X456 5
1054
VT/GY
X457 1
1054
VT/GY
1
E6
Center
High
Mounted
Stop
Lamp
2
1450
BK
G400
4833721

Exterior Lights Schematics (Roof Cargo and Center High Mounted Stop Lamps (E29))


F17DL
F17DL
K9
Body
Control
Module
X6 26
1429
BN/WH
X4 11
X275 13
1429
BN/WH
5065
VT/WH
J215
1429
BN/WH
1429
BN/WH
X2 4
B+
B+
X3 K1
X51R
Fuse Block -
Instrument
Panel Right
X50A
Fuse Block -
Underhood
KR112
Cargo
Lamp
Relay
KR59
Stop
Lamp
Relay
S48A
Multifunction
Switch -
Instrument
Panel
F10DR
15A
F38UA
10A
X2 5
11
X3 M6
X5 M1
(Not Used)
X4 M5
1430
WH/VT
1054
VT/GY
X305 2
X206 6
1050
BK
1430
WH/VT
1054
VT/GY
550
BK
X317 1
2
1430
WH/VT
1054
VT/GY
E6
Center
High
Mounted
Stop
Lamp
1050
BK
X317 3
1050
BK
G210
G110
L O C
D E S C

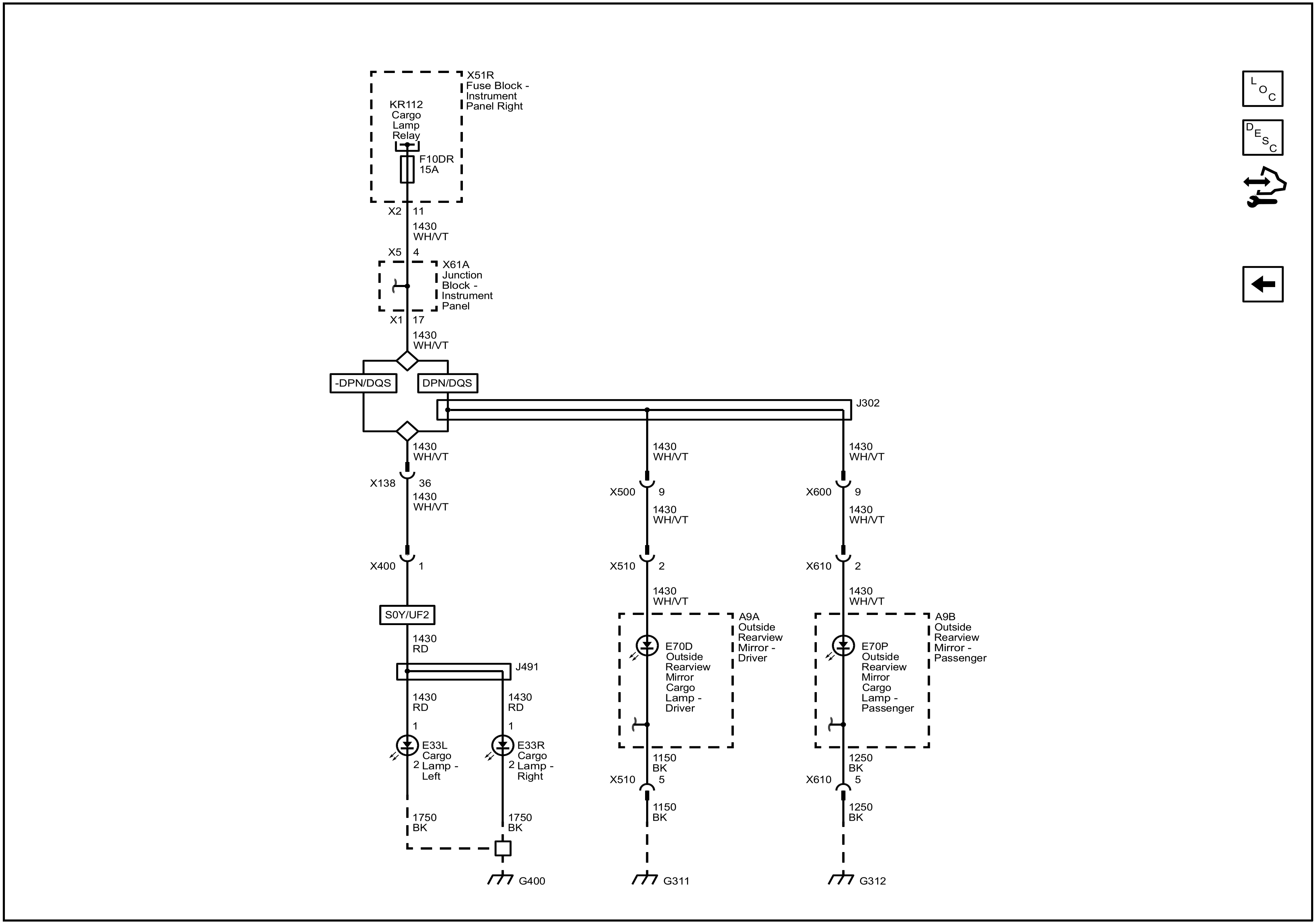
4677115

Exterior Lights Schematics (Mirror Courtesy Lamps (DL3) and License Plate Lamps)

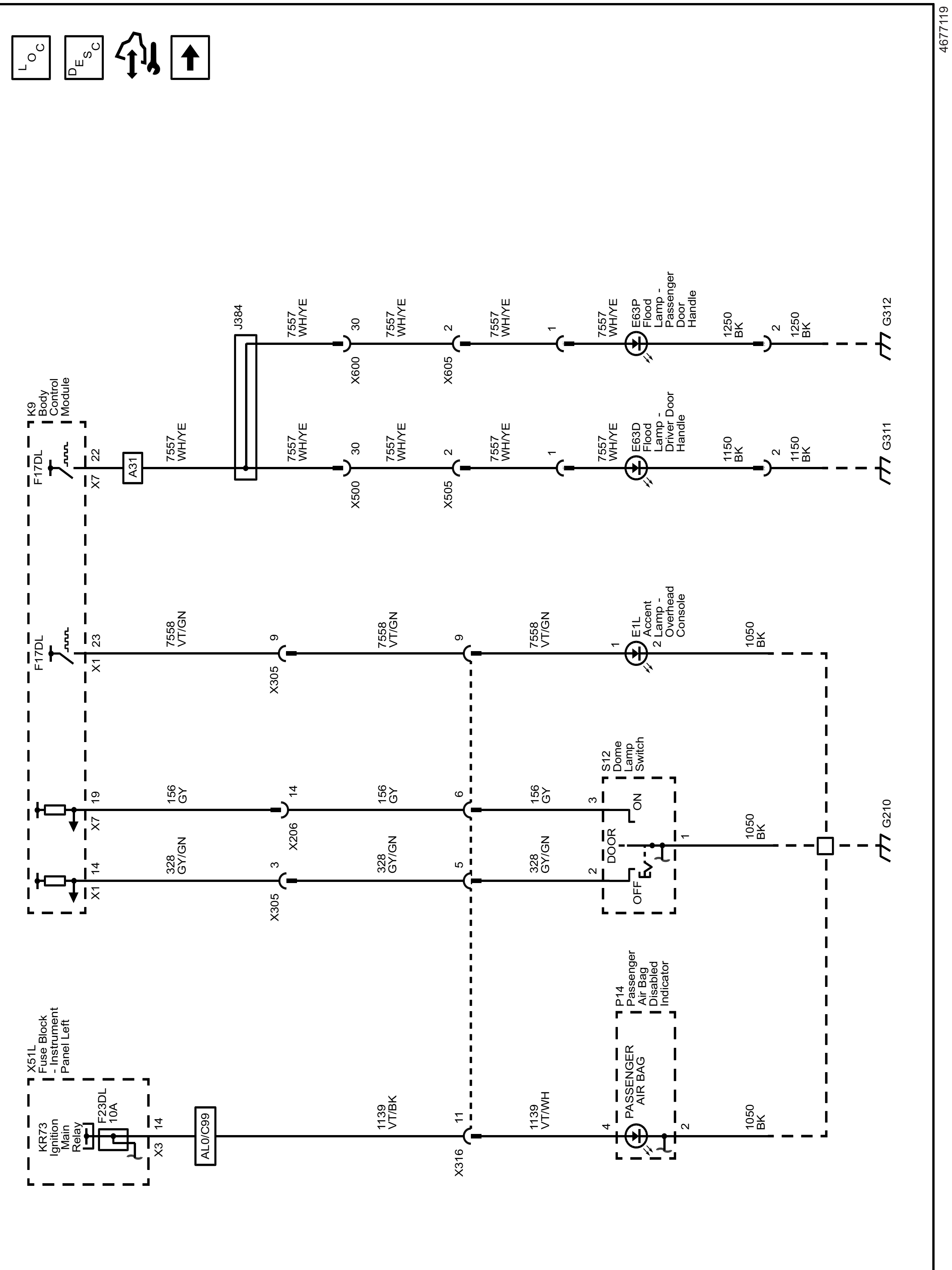

K9
Body
Control
Module
F46DR
F17DL
X7 8
X4 13
DL3
5996
GY/GN
6846
GN/YE
X138 16
J900
J382
X901 3
4
X500 3
X600 3
X510 1
X610 1
E63+9J4
E63-9J4
E63-9J4
A9A
Outside
Rearview
Mirror -
Driver
E8YD
Outside
Rearview
Mirror
Courtesy
Lamp -
Driver
A9B
Outside
Rearview
Mirror -
Passenger
E8YP
Outside
Rearview
Mirror
Courtesy
Lamp -
Passenger
E7
License
Plate
Lamp
E7L
License
Plate
Lamp -
Left
E7R
License
Plate
Lamp -
Right
A
B
1150
BK
1250
BK
1750
BK
X510 5
X610 5
G311
G312
G400

4677117

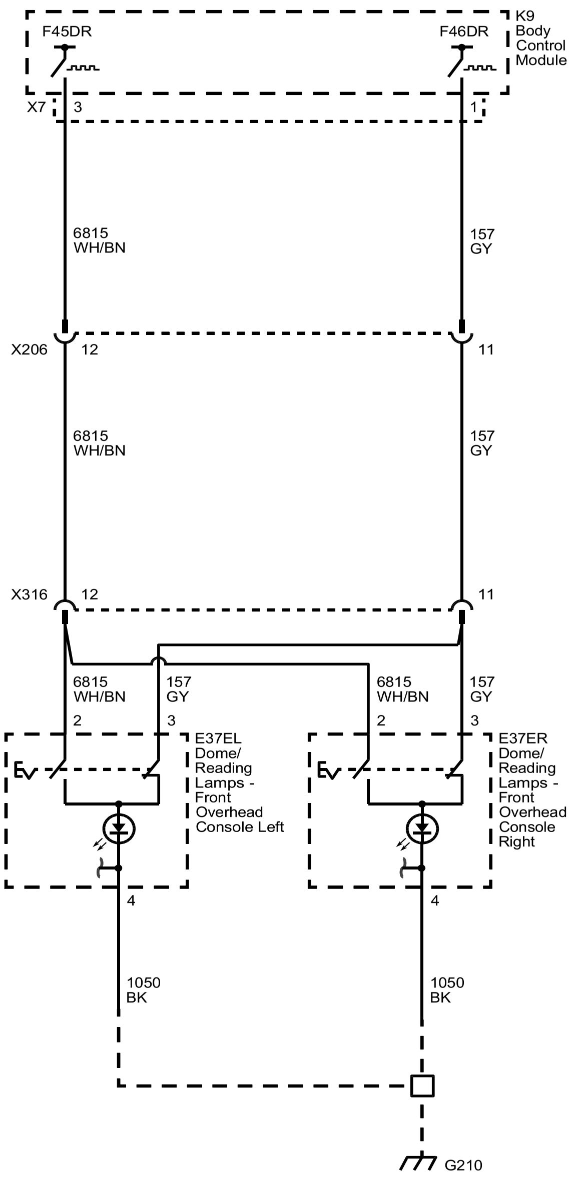
Exterior Lights Schematics (Mirror Cargo Lamps (DPN or DQS) and Cargo Box Lamps (S0Y or UF2 or ZYD))


X51R Fuse Block - Instrument Panel Right
KR112 Cargo Lamp Relay
F10DR 15A
X2 11
1430 WH/VT
X5 4
X61A Junction Block - Instrument Panel
X1 17
1430 WH/VT
-DPN/DQS
DPN/DQS
J302
1430 WH/VT
X138 36
1430 WH/VT
X400 1
S0Y/UF2
1430 RD
J491
1430 RD
1
E33L Cargo Lamp - Left
2
1430 RD
1
E33R Cargo Lamp - Right
2
1750 BK
1750 BK
G400
1430 WH/VT
X500 9
1430 WH/VT
X510 2
1430 WH/VT
A9A Outside Rearview Mirror - Driver
E70D Outside Rearview Mirror Cargo Lamp - Driver
1150 BK
X510 5
1150 BK
G311
1430 WH/VT
X600 9
1430 WH/VT
X610 2
1430 WH/VT
A9B Outside Rearview Mirror - Passenger
E70P Outside Rearview Mirror Cargo Lamp - Passenger
1250 BK
X610 5
1250 BK
G312
L O C
D E S C
4677118

Interior Lights Schematics (E29) (Controls and Flood Lamps (E29))

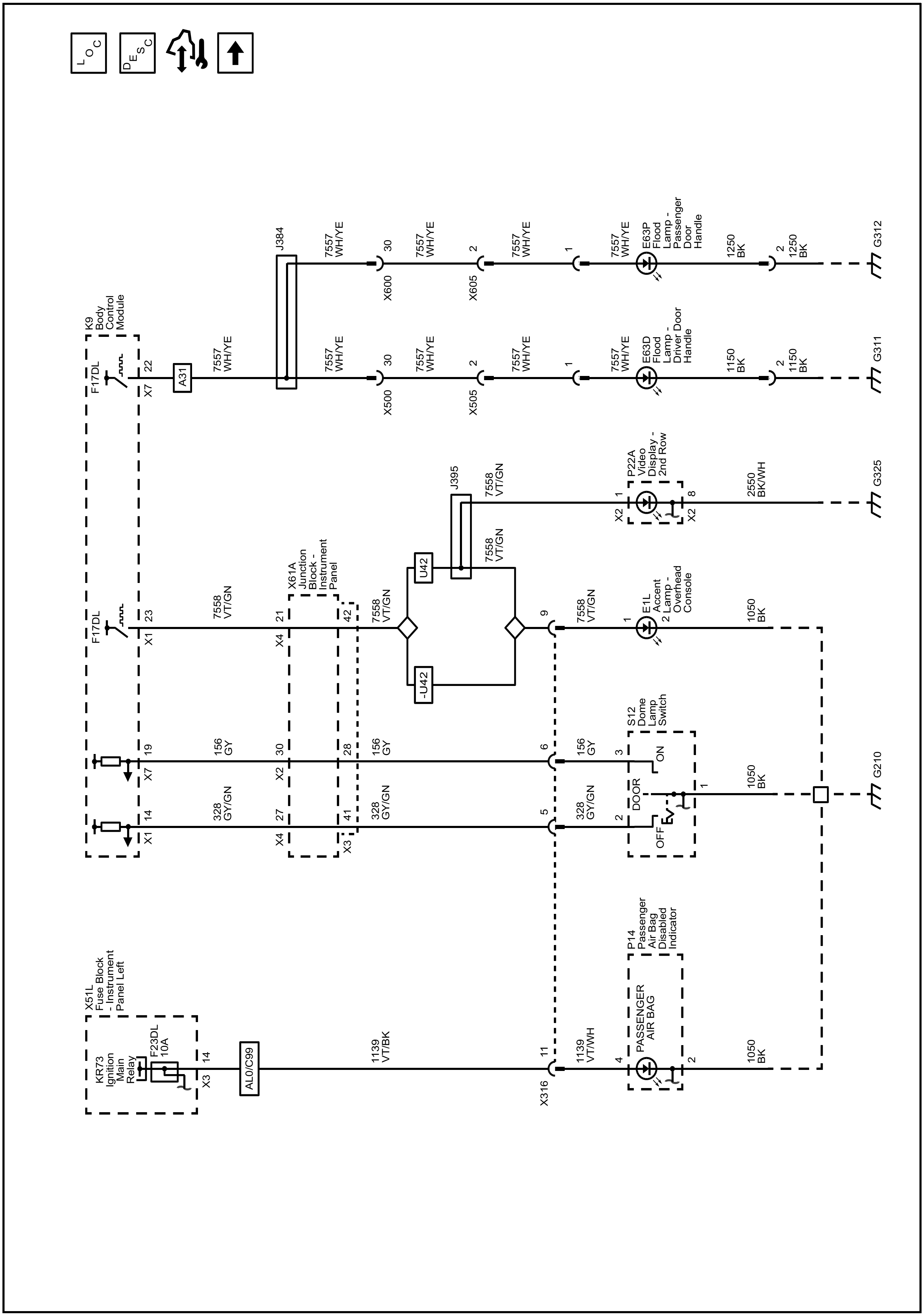

4677119
LOC
DESC
K9 Body Control Module
F17DL
X7 22
F17DL
X1 23
X7 19
X1 14
A31
7557 WH/YE
J384
7557 WH/YE
30
X600
7557 WH/YE
2
X605
7557 WH/YE
1
7557 WH/YE
E63P Flood Lamp - Passenger Door Handle
1250 BK
2
1250 BK
G312
7557 WH/YE
30
X500
7557 WH/YE
2
X505
7557 WH/YE
1
7557 WH/YE
E63D Flood Lamp - Driver Door Handle
1150 BK
2
1150 BK
G311
7558 VT/GN
9
X305
7558 VT/GN
9
7558 VT/GN
1
E1L Accent 2 Lamp - Overhead Console
1050 BK
156 GY
14
X206
156 GY
6
156 GY
3
S12 Dome Lamp Switch
ON
DOOR
OFF
1
1050 BK
G210
328 GY/GN
3
X305
328 GY/GN
5
328 GY/GN
2
X51L Fuse Block - Instrument Panel Left
KR73 Ignition Main Relay
F23DL 10A
X3 14
AL0/C99
1139 VT/BK
11
X316
1139 VT/WH
4
P14 Passenger Air Bag Disabled Indicator
PASSENGER AIR BAG
2
1050 BK

Interior Lights Schematics (E29) (Overhead Lamps (E29))

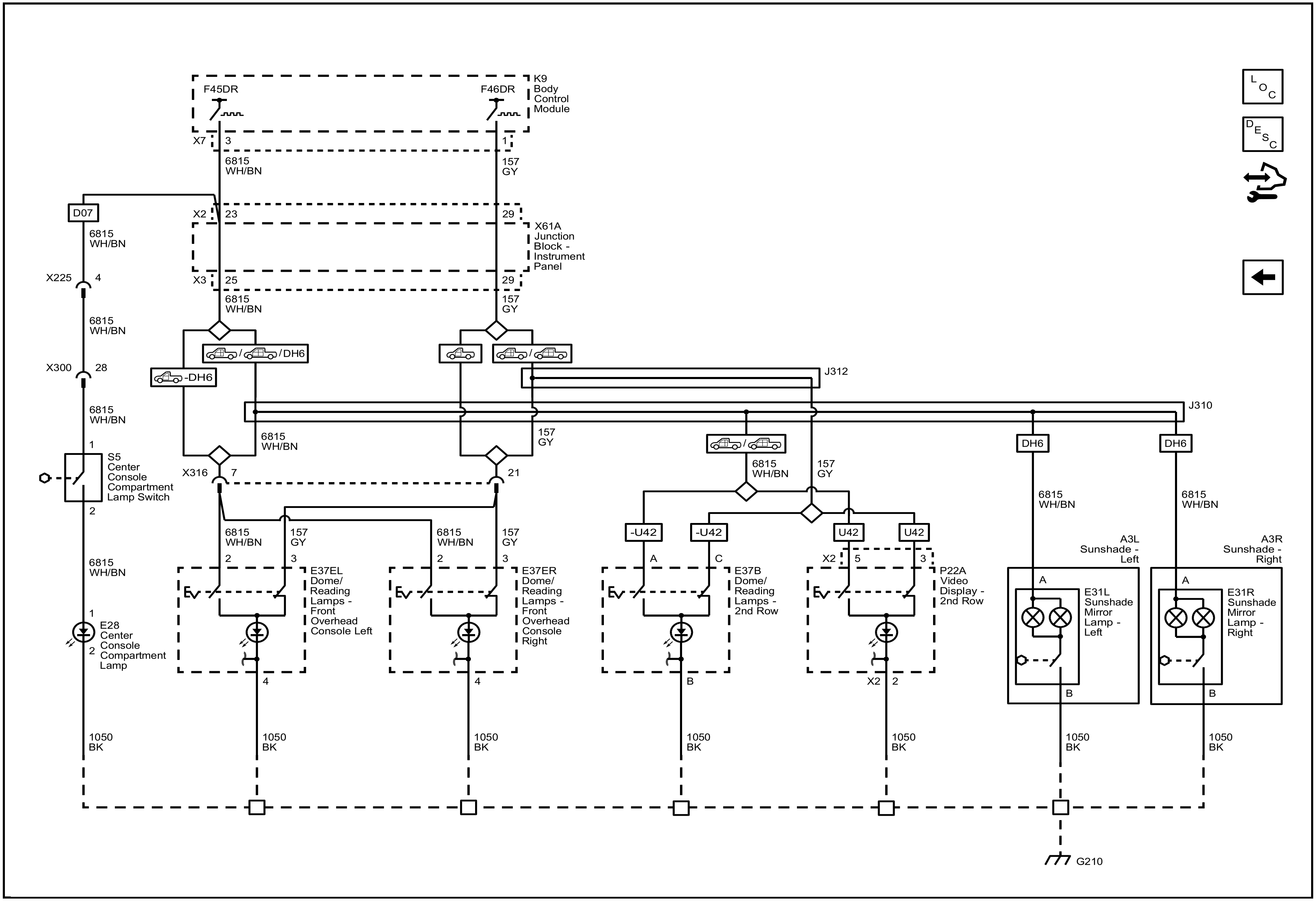

K9
Body
Control
Module
F45DR
F46DR
X7
3
1
6815
WH/BN
157
GY
X206
12
11
6815
WH/BN
157
GY
X316
12
11
6815
WH/BN
157
GY
2
3
E37EL
Dome/
Reading
Lamps -
Front
Overhead
Console Left
6815
WH/BN
157
GY
2
3
E37ER
Dome/
Reading
Lamps -
Front
Overhead
Console
Right
4
1050
BK
4
1050
BK
G210

4677120

Interior Lights Schematics (without E29) (Controls and Flood Lamps (without E29))

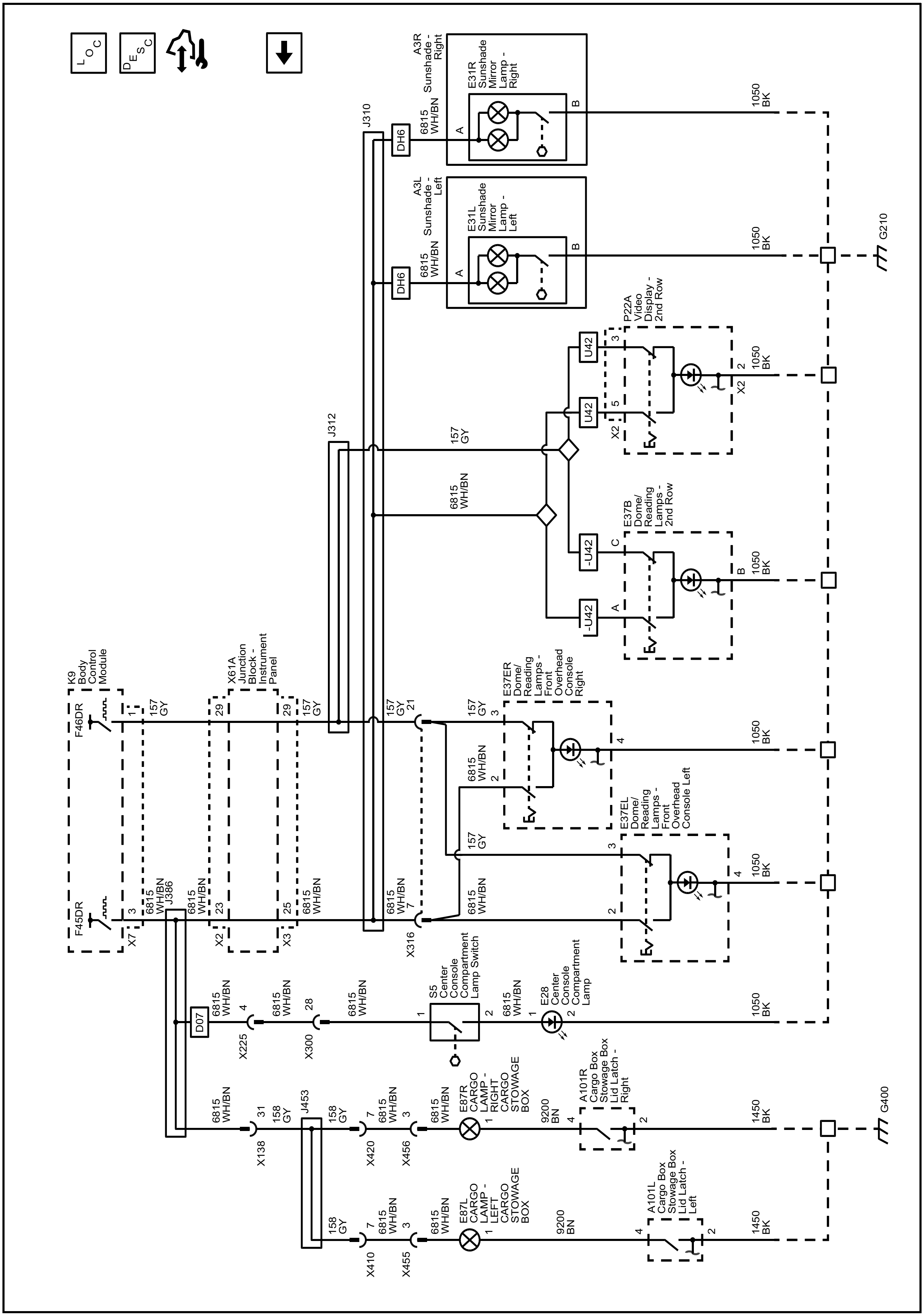

4677123
LOC
DESC
KR73 Ignition Main Relay
X51L Fuse Block - Instrument Panel Left
F23DL 10A
X3 14
AL0/C99
1139 VT/BK
X316 11
1139 VT/WH
4
PASSENGER AIR BAG
P14 Passenger Air Bag Disabled Indicator
2
1050 BK
K9 Body Control Module
F17DL
X1 14
X7 19
X1 23
X7 22
328 GY/GN
156 GY
7558 VT/GN
7557 WH/YE
A31
X61A Junction Block - Instrument Panel
X4 27
X2 30
X4 21
X3 41
28
42
U42
-U42
J395
J384
5
6
9
S12 Dome Lamp Switch
OFF
DOOR
ON
E1L Accent Lamp - Overhead Console
1
2
1050 BK
G210
P22A Video Display - 2nd Row
X2 1
X2 8
2550 BK/WH
G325
X500 30
X505 2
X600 30
X605 2
E63D Flood Lamp - Driver Door Handle
E63P Flood Lamp - Passenger Door Handle
1150 BK
1250 BK
G311
G312

Interior Lights Schematics (without E29) (Floor Console Compartment and Overhead Lamps (without E29 or ZYD))

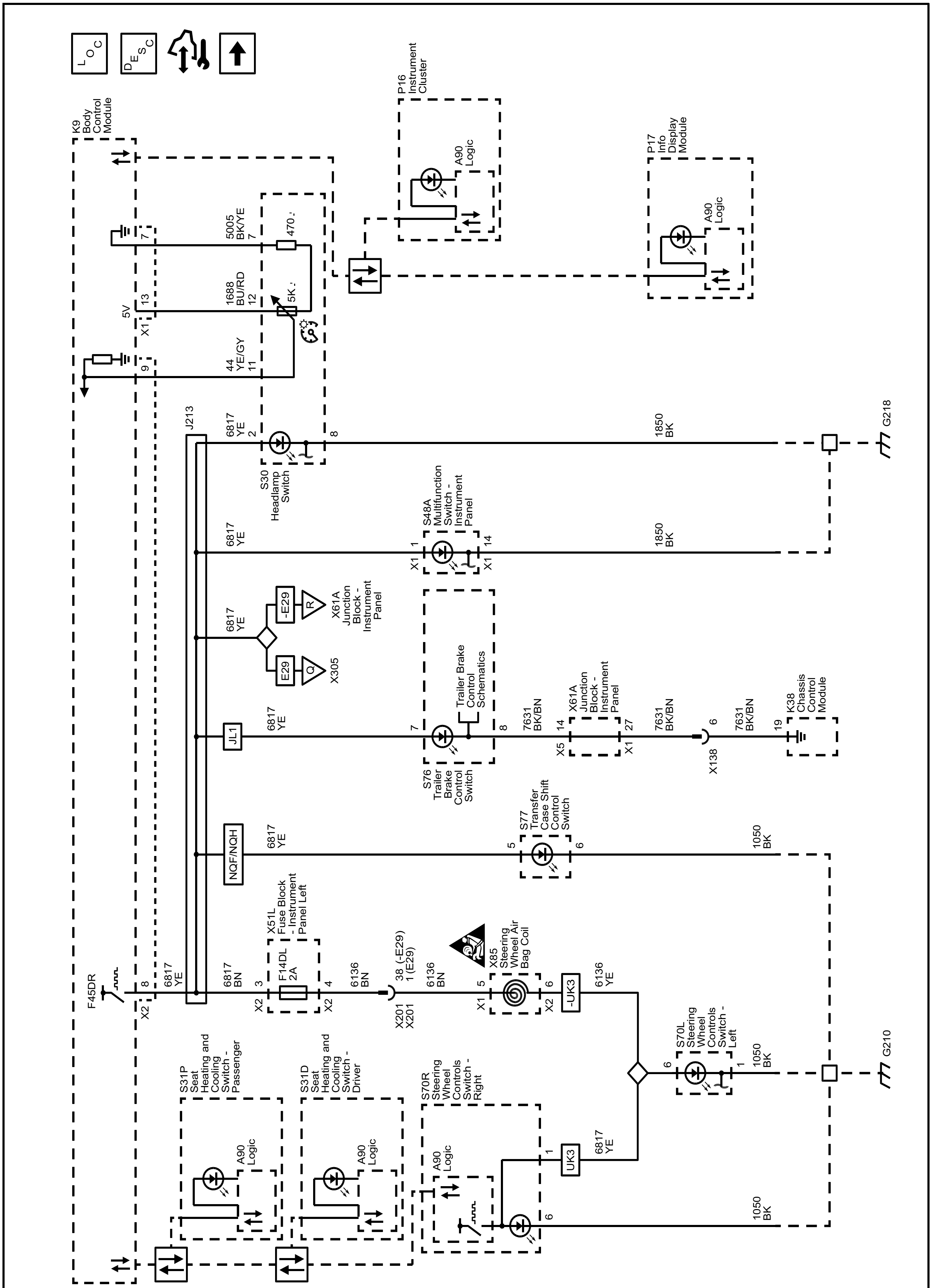

K9
Body
Control
Module
F45DR
F46DR
X7
3
1
6815
WH/BN
157
GY
D07
X2
23
29
X61A
Junction
Block -
Instrument
Panel
X3
25
29
X225
4
X300
28
/DH6
-DH6
J312
J310
X316
7
21
S5
Center
Console
Compartment
Lamp Switch
1
2
E28
Center
Console
Compartment
Lamp
E37EL
Dome/
Reading
Lamps -
Front
Overhead
Console Left
E37ER
Dome/
Reading
Lamps -
Front
Overhead
Console
Right
-U42
U42
E37B
Dome/
Reading
Lamps -
2nd Row
P22A
Video
Display -
2nd Row
A
B
C
5
DH6
A3L
Sunshade -
Left
E31L
Sunshade
Mirror
Lamp -
Left
A3R
Sunshade -
Right
E31R
Sunshade
Mirror
Lamp -
Right
1050
BK
G210
L O C
D E S C

4677124

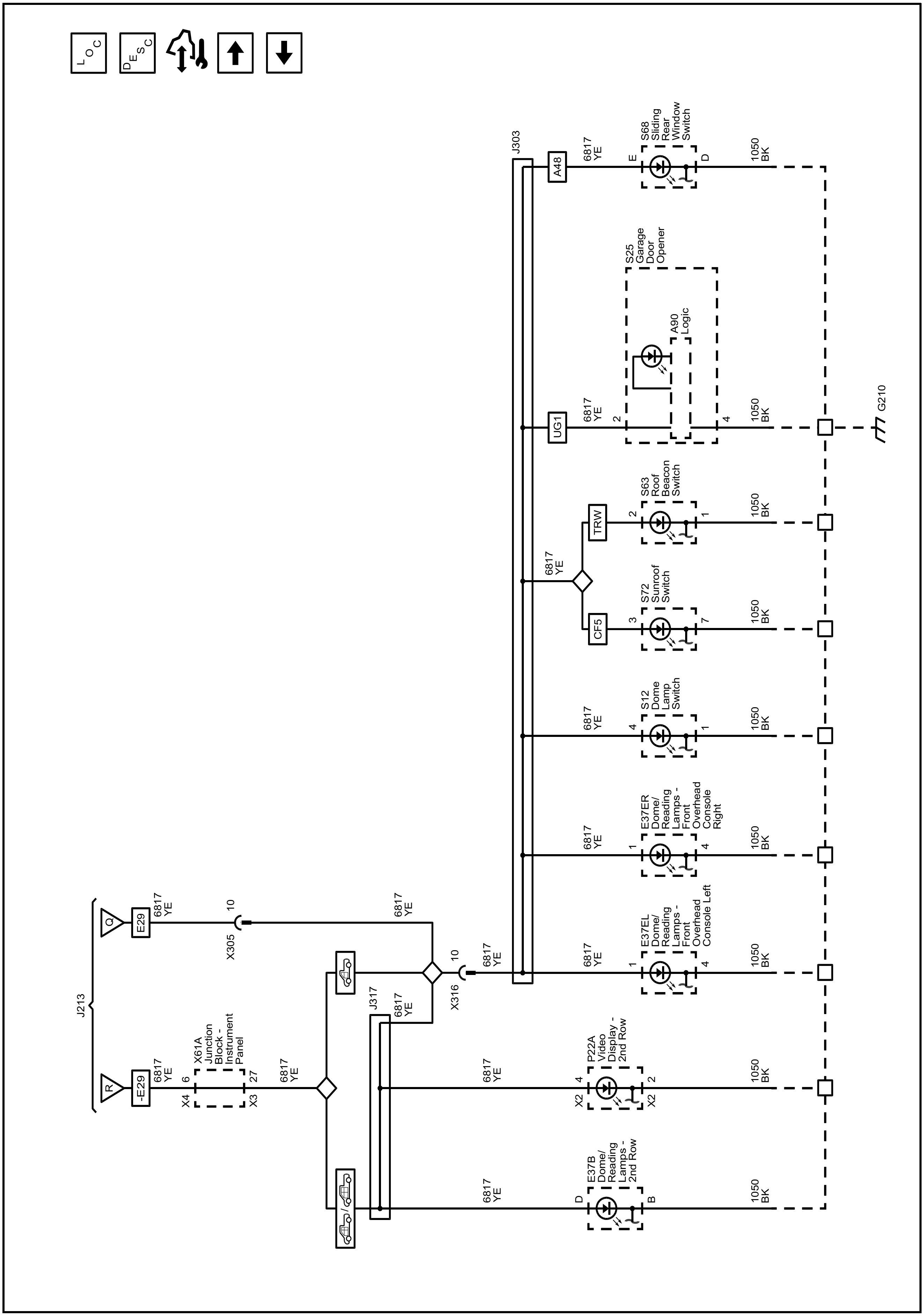
Interior Lights Schematics (without E29) (Floor Console Compartment and Overhead Lamps (ZYD without E29))


LOC
DESC
4833731
K9 Body Control Module
F46DR
F45DR
1
3
X7
157 GY
6815 WH/BN
J386
X61A Junction Block - Instrument Panel
29
23
25
X2
X3
J312
J310
21
7
X316
3
2
4
E37ER Dome/ Reading Lamps - Front Overhead Console Right
E37EL Dome/ Reading Lamps - Front Overhead Console Left
E37B Dome/ Reading Lamps - 2nd Row
P22A Video Display - 2nd Row
-U42
U42
A
B
C
5
X2
DH6
A3L Sunshade - Left
E31L Sunshade Mirror Lamp - Left
A3R Sunshade - Right
E31R Sunshade Mirror Lamp - Right
1050 BK
G210
D07
X225
28
X300
S5 Center Console Compartment Lamp Switch
E28 Center Console Compartment Lamp
31
X138
158 GY
J453
X420
X456
X410
X455
E87R CARGO LAMP - RIGHT CARGO STOWAGE BOX
E87L CARGO LAMP - LEFT CARGO STOWAGE BOX
9200 BN
A101R Cargo Box Stowage Box Lid Latch - Right
A101L Cargo Box Stowage Box Lid Latch - Left
1450 BK
G400

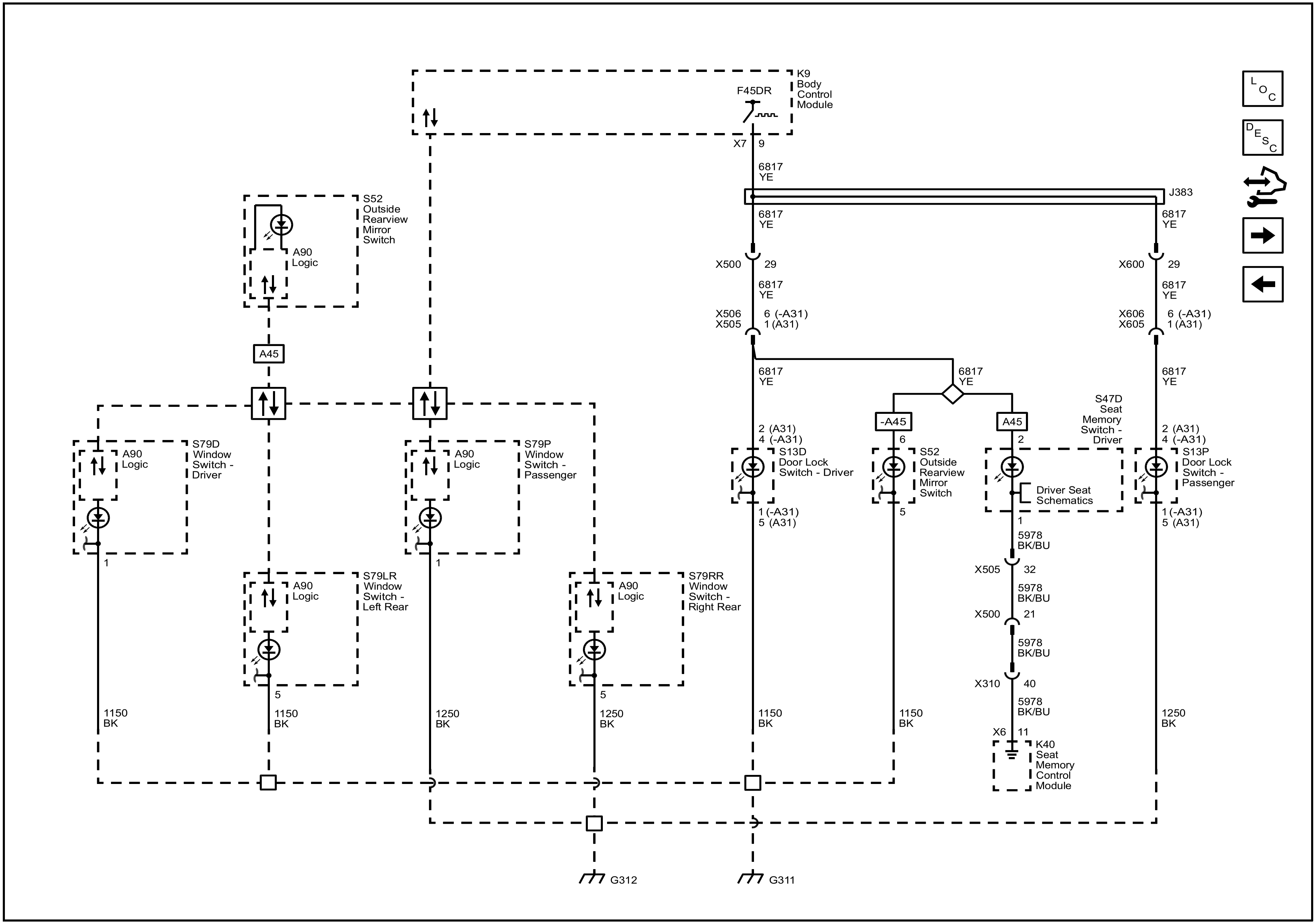
Interior Lights Dimming Schematics (Controls and Backlight - Instrument Panel)


4677126
L O C
D E S C
K9 Body Control Module
5V
X1
9
13
7
44 YE/GY 11
1688 BU/RD 12
5005 BK/YE 7
470 Ω
5K Ω
J213
6817 YE 2
8
S30 Headlamp Switch
1850 BK
G218
P16 Instrument Cluster
A90 Logic
P17 Info Display Module
A90 Logic
S48A Multifunction Switch - Instrument Panel
X1 1
X1 14
6817 YE
-E29
R
E29
Q
X305
X61A Junction Block - Instrument Panel
JL1
S76 Trailer Brake Control Switch
Trailer Brake Control Schematics
7
8
7631 BK/BN
X61A Junction Block - Instrument Panel
X5 14
X1 27
X138
6
19
K38 Chassis Control Module
NQF/NQH
S77 Transfer Case Shift Control Switch
5
6
1050 BK
F45DR
X2 8
6817 YE
6817 BN
X2 3
F14DL 2A
X2 4
X51L Fuse Block - Instrument Panel Left
6136 BN
X201 X201
38 (-E29) 1 (E29)
X85 Steering Wheel Air Bag Coil
X1 5
X2 6
-UK3
6136 YE
S70L Steering Wheel Controls Switch - Left
6
1
G210
S31P Seat Heating and Cooling Switch - Passenger
A90 Logic
S31D Seat Heating and Cooling Switch - Driver
A90 Logic
S70R Steering Wheel Controls Switch - Right
A90 Logic
UK3
1
6817 YE
6
1050 BK

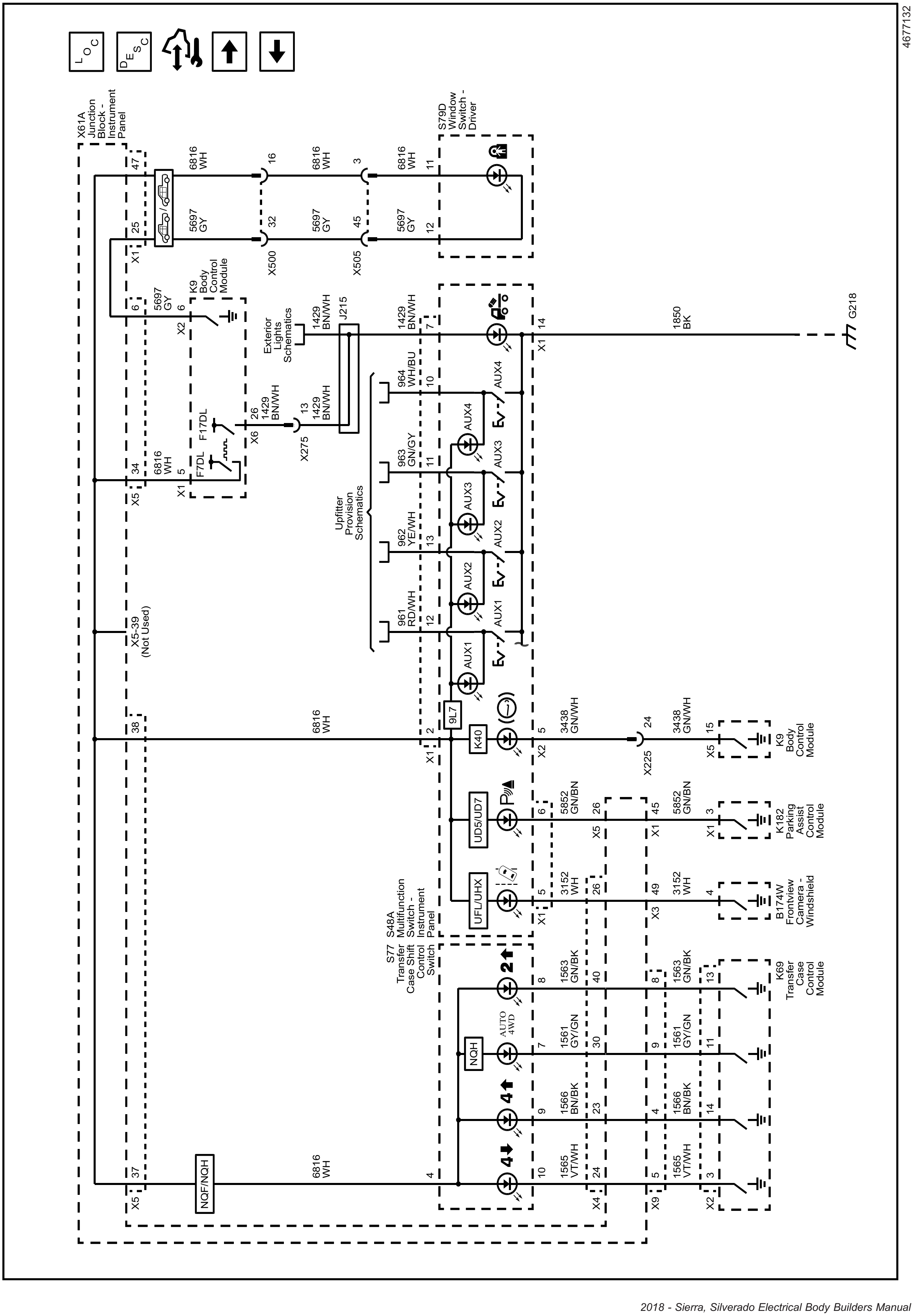
Interior Lights Dimming Schematics (Backlight - Overhead Lamps)


LOC
DESC
4677127
J213
Q
E29
6817 YE
10
X305
R
-E29
6817 YE
X4 6
X61A Junction Block - Instrument Panel
X3 27
6817 YE
J317
6817 YE
10
X316
6817 YE
J303
E37B Dome/ Reading Lamps - 2nd Row
D
B
P22A Video Display - 2nd Row
X2 4
X2 2
E37EL Dome/ Reading Lamps - Front Overhead Console Left
1
4
E37ER Dome/ Reading Lamps - Front Overhead Console Right
S12 Dome Lamp Switch
CF5
3
7
S72 Sunroof Switch
TRW
2
1
S63 Roof Beacon Switch
UG1
S25 Garage Door Opener
A90 Logic
A48
E
D
S68 Sliding Rear Window Switch
1050 BK
G210

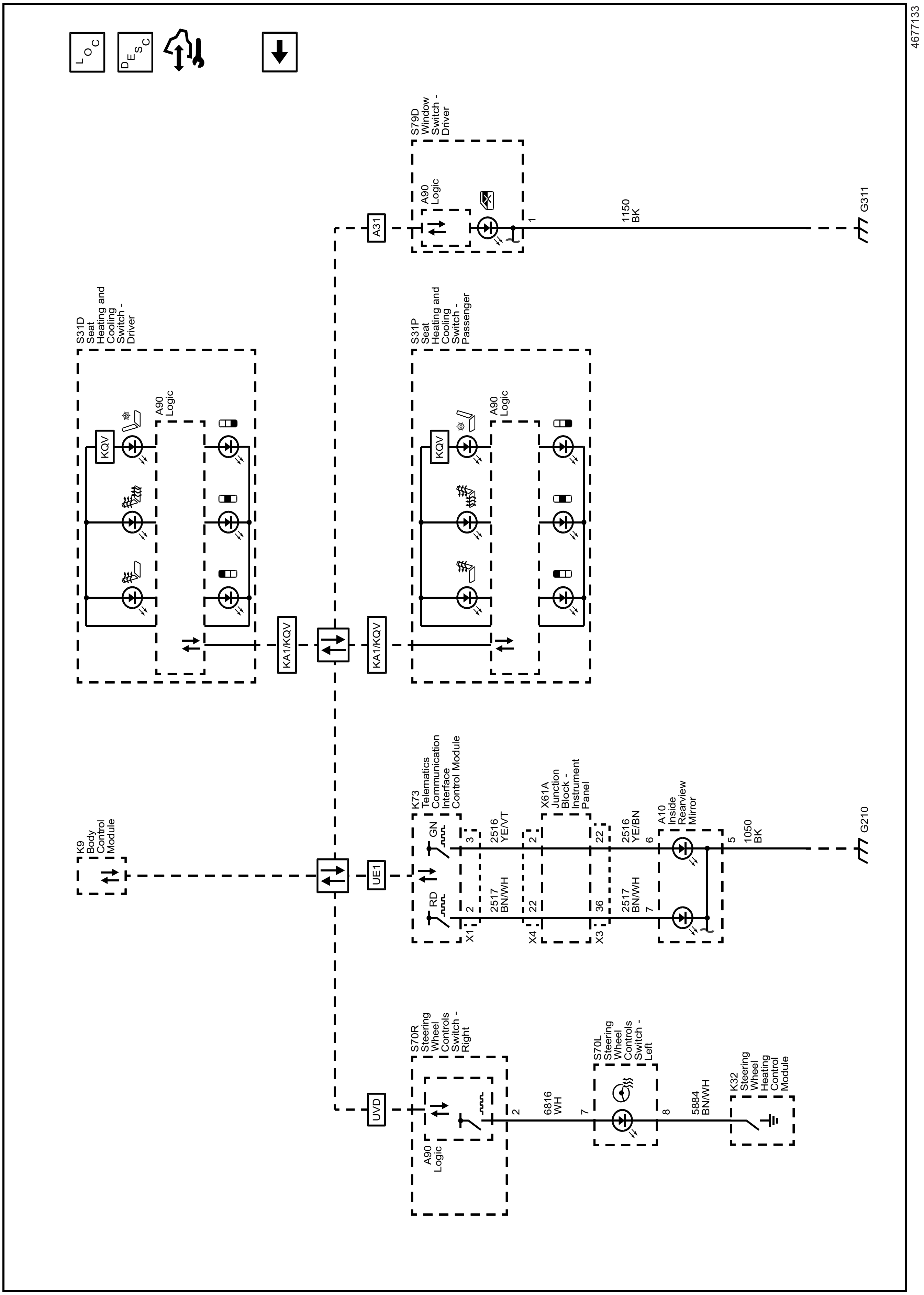
Interior Lights Dimming Schematics (Backlight - Doors)


K9 Body Control Module
F45DR
X7 9
6817 YE
J383
X500 29
X506 6 (-A31)
X505 1 (A31)
X600 29
X606 6 (-A31)
X605 1 (A31)
2 (A31)
4 (-A31)
S13D Door Lock Switch - Driver
1 (-A31)
5 (A31)
S13P Door Lock Switch - Passenger
-A45
6
S52 Outside Rearview Mirror Switch
5
A45
2
S47D Seat Memory Switch - Driver
Driver Seat Schematics
1
5978 BK/BU
X505 32
X500 21
X310 40
X6 11
K40 Seat Memory Control Module
A90 Logic
S79D Window Switch - Driver
S79P Window Switch - Passenger
S79LR Window Switch - Left Rear
S79RR Window Switch - Right Rear
1150 BK
1250 BK
G312
G311
4677129

Interior Lights Dimming Schematics (Indicators - Discrete)


4677132
LOC
DESC
X61A Junction Block - Instrument Panel
X1 25
47
6816 WH
5697 GY
X500 32 16
X505 45 3
S79D Window Switch - Driver
12
11
6
5697 GY
K9 Body Control Module
X2 6
Exterior Lights Schematics
1429 BN/WH
J215
7
X1 14
1850 BK
G218
X5 34
6816 WH
X1 5
F7DL
F17DL
X6 26
1429 BN/WH
X275 13
Upfitter Provision Schematics
964 WH/BU 10
963 GN/GY 11
962 YE/WH 13
961 RD/WH 12
AUX4
AUX3
AUX2
AUX1
X5-39 (Not Used)
38
9L7
K40
X1 2
X2 5
3438 GN/WH
X225 24
X5 15
K9 Body Control Module
UD5/UD7
6
5852 GN/BN
X5 26
X1 45
X1 3
K182 Parking Assist Control Module
UFL/UHX
X1 5
3152 WH
26
X3 49
4
B174W Frontview Camera - Windshield
S48A Multifunction Switch - Instrument Panel
S77 Transfer Case Shift Control Switch
2
AUTO 4WD
4
4
NQH
NQF/NQH
X5 37
4
8
1563 GN/BK
40
7
1561 GY/GN
30
9
1566 BN/BK
23
10
1565 VT/WH
X4 24
X9 5
4
9
8
13
11
14
X2 3
K69 Transfer Case Control Module

Interior Lights Dimming Schematics (Indicators - Serial Data)


4677133
LOC
DESC
S79D Window Switch - Driver
A90 Logic
A31
1
1150 BK
G311
S31D Seat Heating and Cooling Switch - Driver
A90 Logic
KQV
S31P Seat Heating and Cooling Switch - Passenger
A90 Logic
KQV
KA1/KQV
KA1/KQV
K9 Body Control Module
UE1
K73 Telematics Communication Interface Control Module
GN
RD
X1
3
2
2516 YE/VT
2517 BN/WH
X61A Junction Block - Instrument Panel
X4
2
22
X3
22
36
2516 YE/BN
2517 BN/WH
6
7
A10 Inside Rearview Mirror
5
1050 BK
G210
S70R Steering Wheel Controls Switch - Right
UVD
A90 Logic
2
6816 WH
S70L Steering Wheel Controls Switch - Left
7
8
5884 BN/WH
K32 Steering Wheel Heating Control Module

Description and Operation

Exterior Lighting Systems Description and Operation

The exterior lighting system consist of the following lamps:

- Automatic high beam assist
- Backup lamps
- Daytime running lamps
- Front fog lamps
- Hazard warning lamps
- Headlamps
- Park, tail, license, and marker lamps
- Stop lamps
- Turn signal lamps
- Trailer lighting

Low Beam Headlamps

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch is placed in the ON position, for normal operation
- When the headlamp switch is placed in the AUTO position, for automatic lamp control
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

The BCM will also command the low beam headlamps ON during daylight conditions when the following conditions are met:

- Headlamp switch in the AUTO position
- Windshield wipers ON
- Vehicle in any gear but PARK

When the BCM commands the low beam headlamps ON, the vehicle operator will notice the interior backlighting for the instrument cluster and the various switches with backlighting control will dim to the level of brightness selected by the instrument panel dimmer switch.

The body control module (BCM) monitors three signal circuits from the headlamp switch. When the headlamp switch is in the AUTO position, all three signal circuits are open. When placed in the AUTO position, the BCM monitors inputs from the ambient light sensor to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. When the headlamp switch is placed in the OFF position, the headlamp switch headlamps OFF signal circuit is grounded, indicating to the BCM that the exterior lamps should be turned OFF. With the headlamp switch in the PARK position, the headlamp switch park lamps ON signal circuit is grounded, indicating that the park lamps have been requested. When the headlamp switch is placed in the HEADLAMP position, both the headlamp switch park lamps ON signal circuit and the headlamp switch headlamps ON signal circuit are grounded. The BCM responds to the inputs by illuminating the park lamps and headlamps. When the low beam headlamps are requested, the BCM applies B+ to both low beam headlamp control circuits illuminating the low beam headlamps.

High Beam Headlamps (Chevrolet)

When the low beam headlamps are ON and the turn signal/multifunction switch is placed in the high beam position, ground is applied to the BCM through the high beam signal circuit. The BCM responds to the high beam request by applying ground to the high beam relay control circuit which energizes the high beam relay. With the high beam relay energized, the switch contacts close allowing battery voltage to flow through the 3 pin high beam fuse to the high beam control circuits illuminating the left and right high beam headlamps.

High Beam Headlamps (GMC)

When the low beam headlamps are ON and the turn signal/multifunction switch is placed in the high beam position, ground is applied to the BCM through the high beam signal circuit. The BCM responds to the high beam request by applying ground to the high beam relay control circuit which energizes the high beam relay. With the high beam relay energized, the switch contacts close allowing battery voltage to flow through the 3 pin high beam fuse to the high beam control circuits and on to the left and right headlamp high beam control modules located within the headlamp assemblies. The headlamp high beam control modules respond by applying voltage to there respective high beam solenoid actuators located within the headlamp assemblies. With the left and right high beam solenoid actuators active, the solenoid shutters open in each headlamp assembly exposing the remaining portion of the headlamp that was covered by the shutters illuminating the high beams at full intensity.

Automatic High Beam Assist (AHBA)

The automatic high beam assist (AHBA) system operates the high beam headlamps ON and OFF automatically when the system is activated and certain conditions are met. The AHBA system consists of a front camera module that detects light and is able to identify approaching vehicles on an even, straight road at a distance of greater than 0.4 km (0.25 mi). The front camera module analyzes light color, intensity, and movement. The AHBA system will turn OFF the high beam headlamps when approaching vehicle headlamps or preceding vehicle taillights are detected by the front camera module. AHBA can be deactivated when the headlamp dimmer switch is moved from the neutral position to the high beam or flash to pass positions. AHBA can be reactivated by operating the high beam select switch from the neutral position to the high beam position twice within 2 seconds.

AHBA System Activation

- Vehicle ON
- Headlamp switch placed in the AUTO position
- Headlamp dimmer switch must be in the neutral position
- Outside lighting conditions must be dark
- Vehicle speed greater than 25 mph (40 km/h)

AHBA System Operation

The following are conditions that the AHBA system will turn the high beam headlamps off during operation:

- The system detects approaching traffic headlamps
- The system detects preceding traffic tail lamps
- Ambient light level too high due to towns or twilight situations
- The vehicle's speed drops below 13 mph (22 km/h)
- Delay

Note: AHBA may not operate properly if any of the following conditions exist:

- Approaching and preceding vehicles lamps are undetectable due to dirt, snow, road spray, smoke, fog, or any other airborne conditions.
- The front camera module is covered with ice, dirt, snow, haze, or is obstructed.
- The vehicle is being driven on winding or hilly road conditions which would make any on coming vehicle headlamps undetectable by the AHBA.

AHBA System Deactivation

- Manually operating the headlamp dimmer switch from neutral to high beam position
- AHBA is deactivated automatically when the front or rear fog lamps are turned ON

AHBA System Indicator

The status of the AHBA system is shown by a green indicator located on the instrument panel cluster. When AHBA is active, the indicator will be illuminated continuously. If the operator deactivates the AHBA system, the indicator will turn off.

Daytime Running Lamps

The daytime running lamps will illuminate continuously when the following conditions are met:

- The ignition is in the RUN or CRANK position
- The shift lever is out of the PARK position for vehicles equipped with automatic transmissions or the parking brake is released for vehicles with manual transmissions
- The low and high beam headlamps are OFF

Daytime Running Lamps (Base)

The ambient light sensor is used to monitor outside lighting conditions. The ambient light sensor provides a voltage signal that will vary between 0.2 and 4.9 volts depending on outside lighting conditions. The body control module (BCM) provides a 5 V reference signal to the ambient light sensor and the HVAC control module provides a low reference ground. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either daytime running lights or automatic lamp control when the headlamp switch is in the AUTO position. In daylight conditions the BCM will command the low beam headlamps ON. Any function or condition that turns on the headlamps will cancel daytime running lamps operation.

Daytime Running Lamps (GMC with SLT)

The ambient light sensor is used to monitor outside lighting conditions. The ambient light sensor provides a voltage signal that will vary between 0.2 and 4.9 volts depending on outside lighting conditions. The body control module (BCM) provides a 5 V reference signal to the ambient light sensor and the HVAC control module provides a low reference ground. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either daytime running lights or automatic lamp control when the headlamp switch is in the AUTO position. In daylight conditions the BCM applies B+ to both daytime running lamp control circuits to the left and right multifunction light emitting diode (LED) control modules located in each headlamp assembly. The multifunction LED control modules respond the to the B+ input from the BCM by illuminating the left and right daytime running lamp LED's. Any function or condition that turns on the low beam headlamps will cancel daytime running lamps operation.

Flash to Pass

When the turn signal/multifunction switch is momentarily placed in the flash to pass position, ground is applied to the turn signal/multifunction switch. The turn signal/multifunction switch applies ground to the body control module (BCM) through the flash to pass switch signal circuit. The BCM responds to the flash to pass request by applying ground to the high beam relay control circuit. This energizes the high beam relay, closing the switch side contacts of the high beam relay, applying battery voltage to the 3 pin high beam fuse. Battery voltage is applied from the high beam fuse through the high beam control circuit to the high beam headlamp assemblies. This causes the high beam headlamps to illuminate at full brightness momentarily.

Front Fog Lamps

The front fog lamp relay is supplied with battery voltage at all times. The front fog lamp switch signal circuit is grounded momentarily by pressing the front fog lamp switch. The body control module (BCM) energizes the front fog lamp relay by applying ground to the front fog lamp relay control circuit. When the front fog lamp relay is energized, the relay switch contacts close and battery voltage is applied through the front fog lamp fuse to the front fog lamp supply voltage circuit which illuminates the front fog lamps.

Hazard Lamps

The hazard flashers may be activated in any power mode. The hazard switch signal circuit is momentarily grounded when the hazard switch is pressed. The body control module (BCM) responds to the hazard switch signal input by supplying battery voltage to all four turn signal lamps in an ON and OFF duty cycle. When the hazard switch is activated, the BCM sends a serial data message to the instrument panel cluster requesting both turn signal indicators to be cycled ON and OFF.

The instrument panel dimmer switch controls the brightness of the interior backlighting components. When the instrument panel dimmer switch is placed in a desired brightness position, the body control module (BCM) receives a signal from the instrument panel dimmer switch and responds by applying a pulse width modulated voltage to the hazard switch light emitting diode (LED) backlighting control circuit illuminating the LED to the desired level of brightness.

Park, Tail, and License Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, and license lamps control circuits illuminating the park, tail, and license lamps.

Stop Lamps

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the left and right stop lamp control circuits as well as the center high mounted stop lamp control circuit illuminating the left and right stop lamps and the center high mounted stop lamp.

Turn Signal Lamps

Ground is applied at all times to the turn signal/ multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the front and rear turn signal lamps through there respective control circuits. When a turn signal request is received by the BCM, a serial data message is sent to the instrument cluster requesting the respective turn signal indicator be pulsed ON and OFF.

Backup Lamps

Automatic Transmission

With the engine ON and the transmission in the REVERSE position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the REVERSE position. The BCM applies battery voltage to the backup lamps control circuit illuminating the backup lamps. Once the driver moves the gear selector out of the REVERSE position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamps control circuit. The engine must be ON for the backup lamps to operate.

Manual Transmission

The engine control module (ECM) provides a signal circuit to the backup lamp switch which is permanently grounded. With the engine running and the transmission in the reverse position, the backup lamp switch signal circuit is pulled low and the ECM responds by sending a serial data message to the body control module (BCM). The message indicates that the gear selector is in the reverse position. The BCM energizes the backup lamp relay by applying battery voltage to the backup lamp relay control circuit. When the backup lamp relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuses to the backup lamp control circuits which illuminates the backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the ECM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit. The engine must be running for the backup lamps to operate.

Trailer Lighting

Backup Lamps

For backup lamp operation, the backup lamp relay is supplied with battery voltage at all times. With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the reverse position. The BCM energizes the backup lamp relay by applying battery voltage to the backup lamp relay control circuit. When the backup lamp relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuses to the backup lamp control circuits which illuminates the backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, license lamps, and trailer park lamps control circuits illuminating the park, tail, license, and trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/ turn signal lamp relay’s are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the left and right trailer stop/turn signal lamp relay’s by applying voltage to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay’s energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse’s to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the left and right trailer stop/turn signal lamp relay control circuits energizing the relay's in an ON and OFF cycle. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left and right trailer stop/turn signal fuse's to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

Trailer Lighting (Export)

The trailer lighting control module is supplied with battery voltage as well as ignition voltage from the rear body fuse block and is permanently grounded. For lighting operation, the trailer lighting control module receives serial data messages from the body control module (BCM) indicating what lamps have been activated on the vehicle. The trailer lighting control module responds by applying voltage to the appropriate control circuits for the requested lamps illuminating the lamps on the attached trailer.

For stop lamp operation, the trailer lighting control module receives an input from the center high mount stop lamp control circuit. When the brakes are applied on the vehicle, the trailer lighting control module receives the brake applied input from the center high mount stop lamp control circuit. The trailer lighting control module responds by applying voltage to the trailer stop lamp control circuit illuminating the trailer stop lamps. The trailer lighting control module also receives a serial data message from the BCM indicating that the vehicle brakes have been applied.

Battery Run Down Protection/ Inadvertent Power

To provide battery run down protection, the exterior lamps will be deactivated automatically under certain conditions. The BCM monitors the state of the headlamp switch. If the park or headlamp switch is ON when the ignition switch is placed in either the CRANK or RUN position and then placed in the OFF position, the BCM initiates a 10 minute timer. At the end of the 10 minutes, the BCM will turn off the control power output to the park lamp controls as well as the headlamp relay coils, deactivating the exterior lamps. This feature will be cancelled if any power mode other than OFF becomes active. The BCM will disable battery run down protection if any of the following conditions exist. The park or headlamp switch is placed in the ON to OFF position, and back to the ON position during battery run down protection. The BCM determined that the park or headlamp switch was not active when the ignition was turned OFF.

Interior Lighting Systems Description and Operation

Interior Lamps

The interior lighting system consist of two groups. This first group includes lamps that may not be dimmed.

- Dome lamps
- Center console compartment lamps
- Reading lamps
- Sunshade mirror lamps

Dome Lamps

The dome lamp switch has 3 positions: DOOR, OFF, and ON. The ON position provides a ground for continuous operation and the dome lamp will remain illuminated until the switch is placed in either the DOOR or OFF position. When in the DOOR position, the dome lamp operation is controlled by the body control module (BCM). When any door is opened, the door ajar switch contacts close and the BCM receives a door-open input. The BCM illuminates the dome lamp when any door is opened or a door lock/unlock request is activated with the key fob. After all doors have been closed, the dome lamp will remain illuminated approximately 3 seconds after the last door closes. When the driver places the dome lamp switch in the OFF position, the dome lamp will be disabled. In the event that the dome lamp were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position and no doors opened, the BCM will deactivate the dome lamp control circuit to prevent total battery discharge. The dome lamps will turn OFF using the theater dimming feature when controlled by the BCM.

Center Console Compartment Lamp

The inadvertent power supply voltage circuit from the BCM provides battery voltage to the center console compartment lamp. When the center console is opened, the center console compartment lamp switch contacts close providing a path to ground and the center console compartment lamp illuminates. If the operator inadvertently leaves the center console compartment door open with the center console compartment lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Reading Lamps

The inadvertent power supply voltage circuit from the BCM provides battery positive voltage to each reading lamp. When a reading lamp switch is activated, the switch contacts close providing a path to ground and the reading lamp illuminates. If the operator inadvertently leaves a reading lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Sunshade Mirror Lamps

The inadvertent power supply voltage circuit from the BCM provides battery voltage to each set of sunshade mirror lamps. When the sunshade mirror cover is opened, a switch closes providing ground and the sunshade lamps illuminate. If the operator inadvertently leaves a sunshade mirror cover open with the lamps ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Keyless Entry Interior Illumination

When the operator uses the keyless entry transmitter in order to unlock the doors, the BCM receives a door-unlock signal. The BCM must receive inputs from various systems that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all doors are closed before the BCM will activate the interior lamps. After all doors have been closed, the courtesy lamps will turn OFF immediately if the ignition switch is turned to the ON position, the door locks are LOCKED, or approximately 20 seconds after the last door closes. The BCM will turn off the courtesy lamps through the theater dimming feature. The BCM keeps the courtesy lamps on for 40 seconds after an alarm event is completed.

Interior Lamps Dimming

The second group includes lamps which may be dimmed. This group may use a combination of light emitting diodes (LED), incandescent lamps, and pulse width modulation (PWM) illumination.

- Dome/reading lamps – front
- Dome/reading lamps – rear
- Door lock switch – driver
- Door lock switch – passenger
- Garage door opener switch
- Headlamp switch
- HVAC control head assembly
- Multifunction switch – instrument panel
- Outside rearview mirror switch
- Park brake switch
- Radio
- Roof beacon switch
- Seat memory switch – driver
- Sliding rear window switch
- Steering wheel control switch – left
- Steering wheel control switch – right
- Sun roof switch
- Sun roof tilt switch
- Transfer case shift control switch
- Trailer brake control switch
- Window switch – driver
- Window switch – passenger

With the headlamp switch in the PARK or HEAD position, the park lamp switch signal circuit provides an input to the body control module (BCM). The BCM responds by applying voltage to the park lamps as well as the backlight dimming control circuits illuminating all components with interior backlighting. All interior backlighting turns ON at the dimming level indicated by the instrument panel dimmer switch. The instrument panel dimmer switch is a momentary type switch and utilizes a resistor ladder to increase and decrease the brightness of the interior backlighting components. The instrument panel dimmer switch provides a voltage signal to the BCM that will increase as the brightness of the lights are increased and decrease as the brightness of the lights are decreased. The BCM provides a low reference signal and a B+ circuit to the instrument panel dimmer switch. When the instrument panel dimmer switch is held in the desired position, the dimmed voltage setting is applied from the instrument panel dimmer switch through the instrument panel dimmer switch signal circuit to the BCM. The BCM interprets the signal and applies a pulse width modulated voltage through the backlighting control circuits illuminating the interior backlighting to the requested level of brightness.

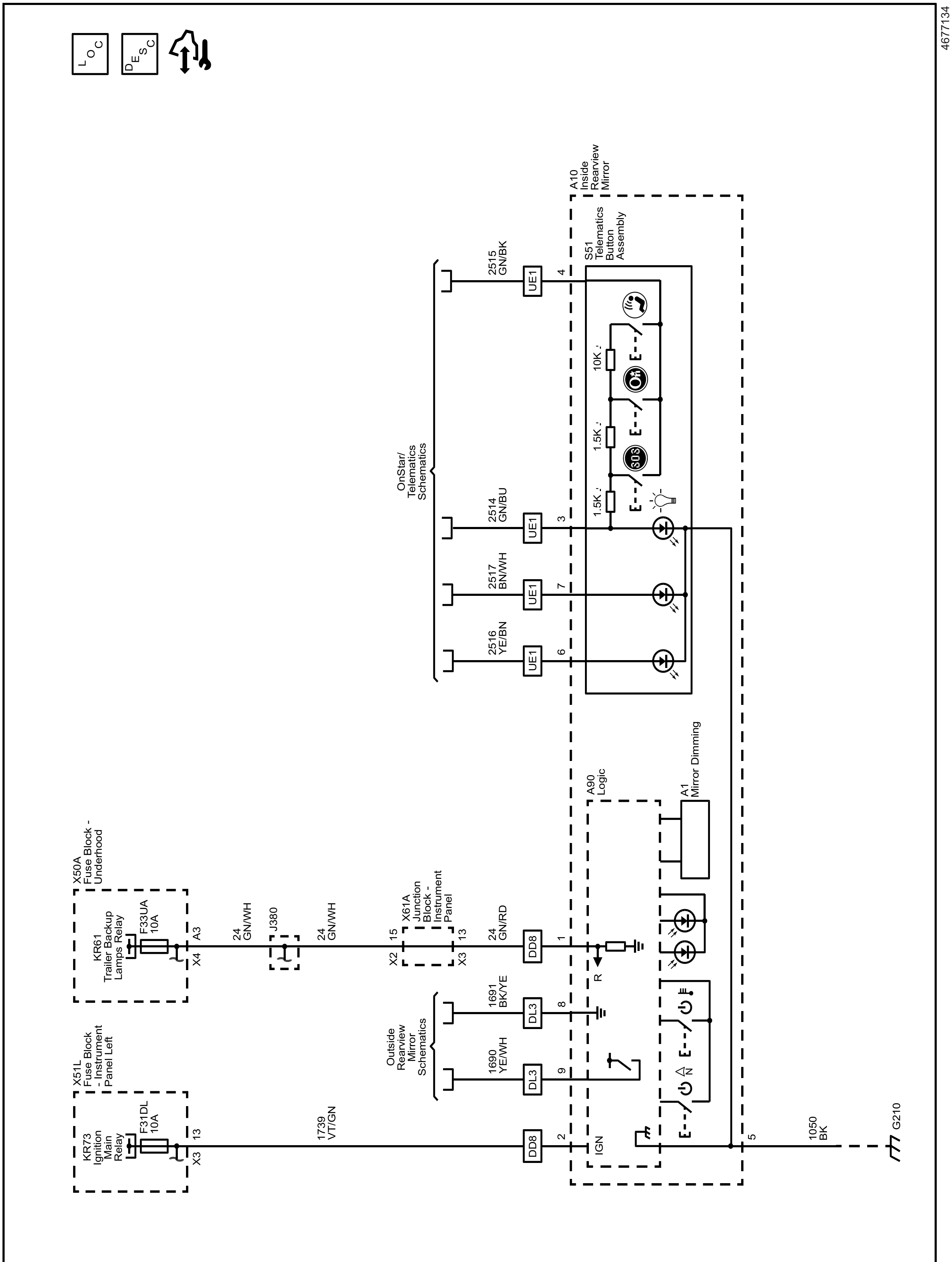
Battery Rundown Protection/ Inadvertent Power

The BCM inadvertent power supply voltage circuit provides battery voltage to all of the interior courtesy lamps. In the event that any of these lamps were to remain illuminated for a period of more than 10 minutes with the ignition switch in the OFF position, the BCM will deactivate the inadvertent power supply voltage circuit to prevent total battery discharge. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this 10 minute period, the timer resets for another 10 minutes.

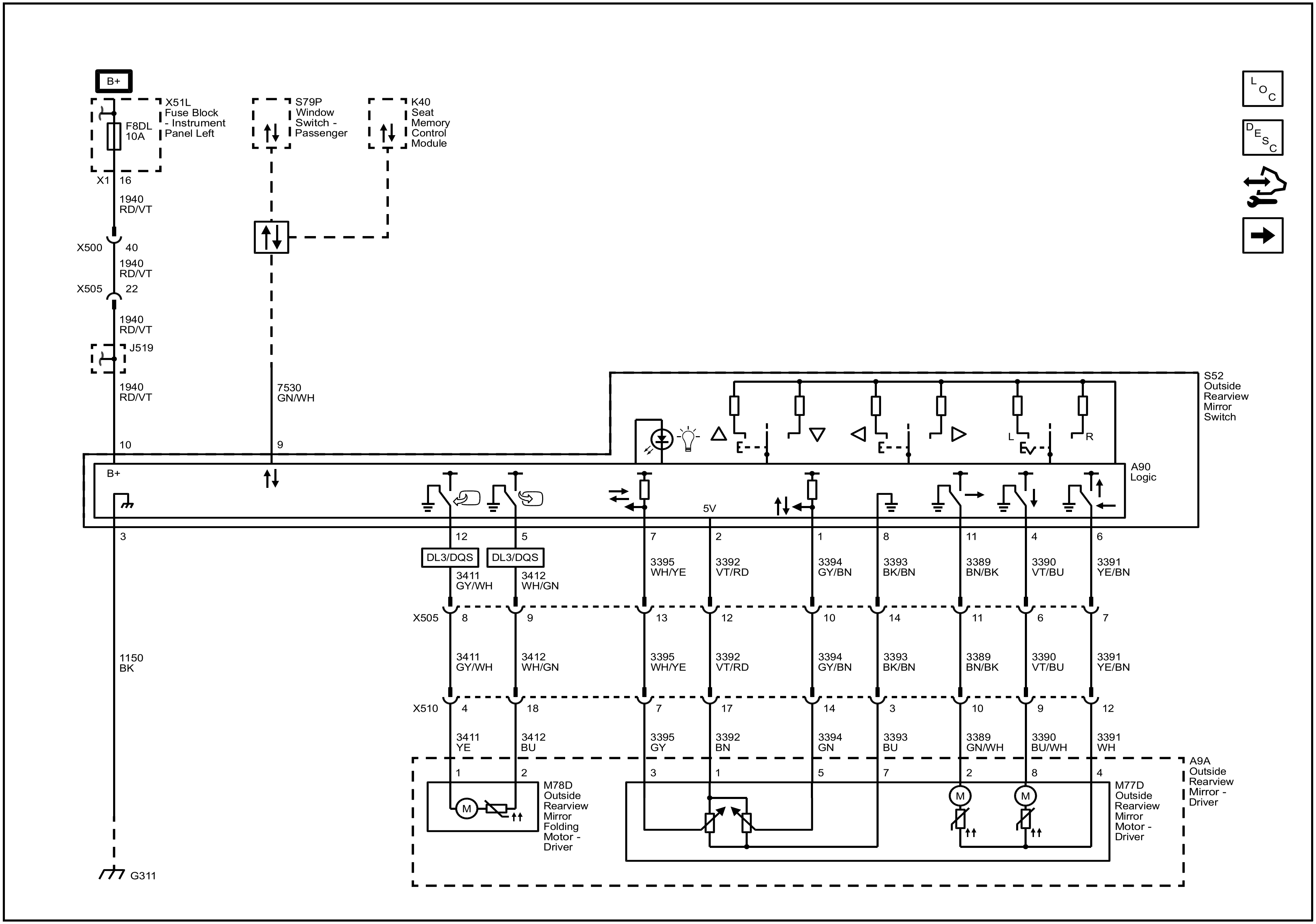
Mirrors

Schematic and Routing Diagrams

Inside Rearview Mirror Schematics (Inside Rearview Mirror)

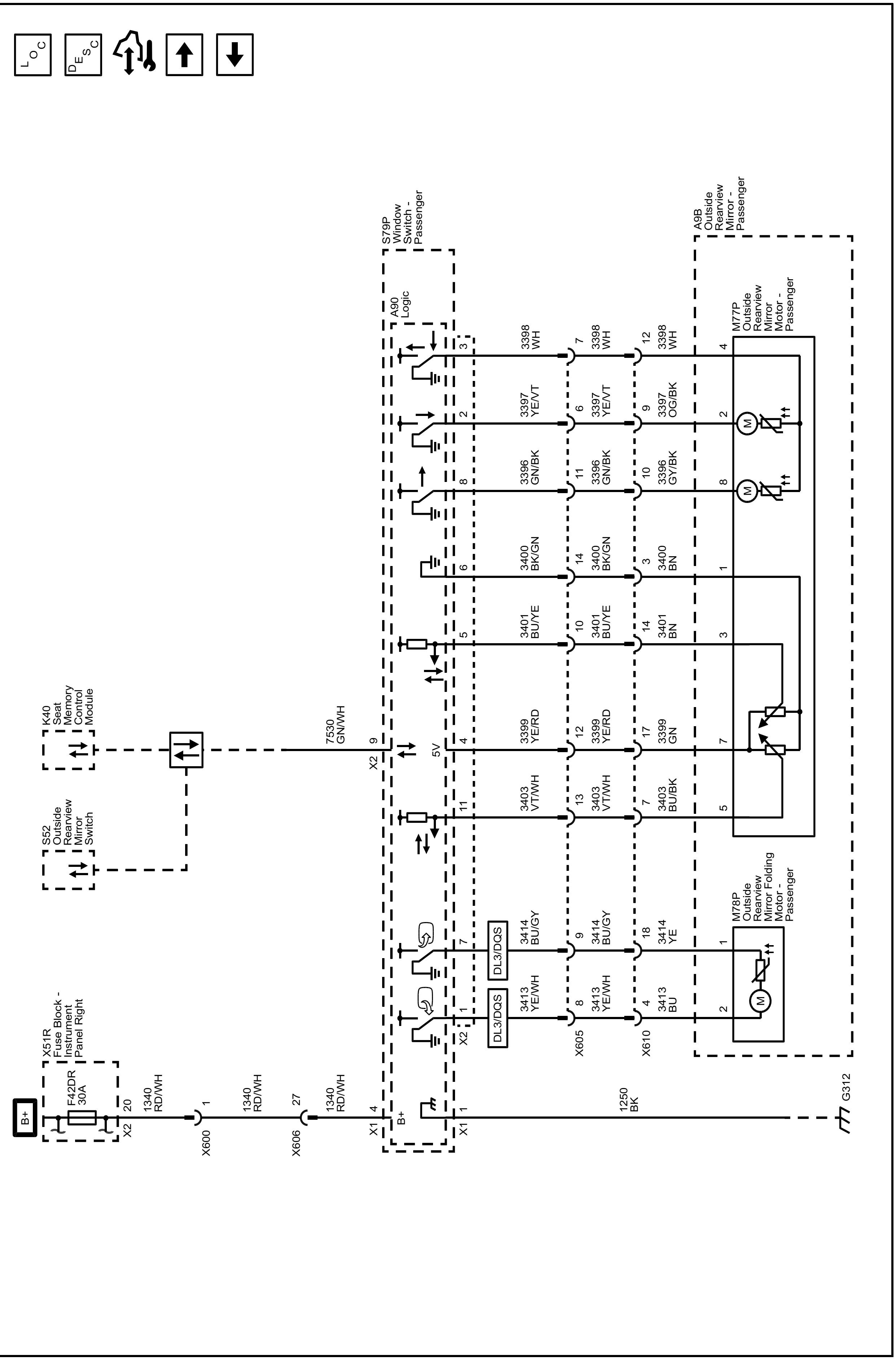

4677134
LOC
DESC
X51L Fuse Block - Instrument Panel Left
KR73 Ignition Main Relay
F31DL 10A
X3
13
1739 VT/GN
DD8
2
X50A Fuse Block - Underhood
KR61 Trailer Backup Lamps Relay
F33UA 10A
X4
A3
24 GN/WH
J380
24 GN/WH
X61A Junction Block - Instrument Panel
X2
15
13
X3
24 GN/RD
DD8
1
Outside Rearview Mirror Schematics
1691 BK/YE
DL3
8
1690 YE/WH
DL3
9
OnStar/ Telematics Schematics
2515 GN/BK
UE1
4
2514 GN/BU
UE1
3
2517 BN/WH
UE1
7
2516 YE/BN
UE1
6
A10 Inside Rearview Mirror
S51 Telematics Button Assembly
1.5K
1.5K
10K
SOS
A90 Logic
A1 Mirror Dimming
R
IGN
N
5
1050 BK
G210

Outside Rearview Mirror Schematics (Controls and Driver (A45))

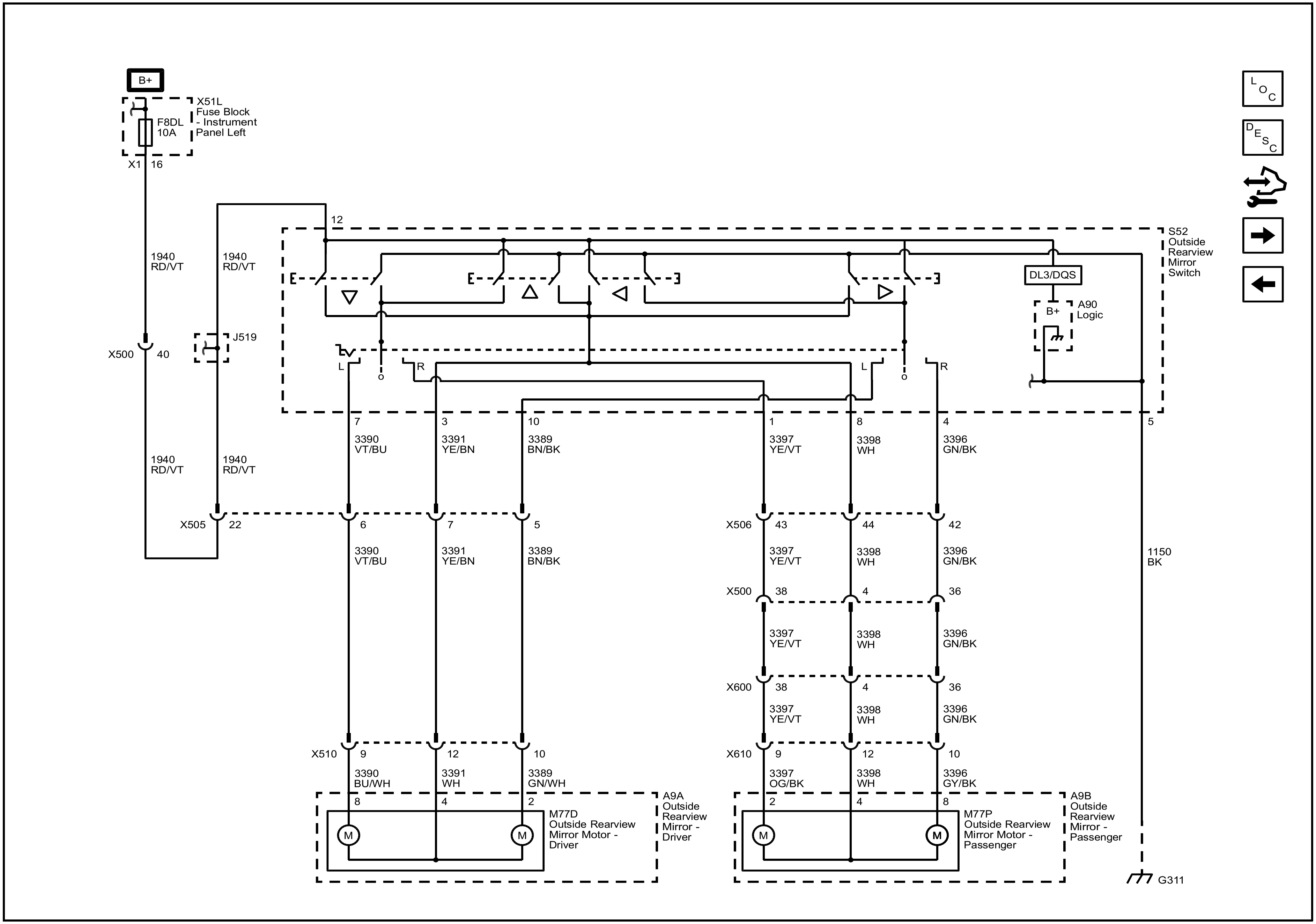

B+
X51L
Fuse Block
- Instrument
Panel Left
F8DL
10A
X1 16
1940
RD/VT
X500 40
1940
RD/VT
X505 22
1940
RD/VT
J519
1940
RD/VT
10
S79P
Window
Switch -
Passenger
K40
Seat
Memory
Control
Module
7530
GN/WH
9
B+
3
1150
BK
G311
S52
Outside
Rearview
Mirror
Switch
L
R
A90
Logic
5V
12
5
7
2
1
8
11
4
6
DL3/DQS
DL3/DQS
3411
GY/WH
3412
WH/GN
3395
WH/YE
3392
VT/RD
3394
GY/BN
3393
BK/BN
3389
BN/BK
3390
VT/BU
3391
YE/BN
X505
8
9
13
12
10
14
11
6
7
3411
GY/WH
3412
WH/GN
3395
WH/YE
3392
VT/RD
3394
GY/BN
3393
BK/BN
3389
BN/BK
3390
VT/BU
3391
YE/BN
X510
4
18
7
17
14
3
10
9
12
3411
YE
3412
BU
3395
GY
3392
BN
3394
GN
3393
BU
3389
GN/WH
3390
BU/WH
3391
WH
1
2
3
1
5
7
2
8
4
M
M78D
Outside
Rearview
Mirror
Folding
Motor -
Driver
M
M
M77D
Outside
Rearview
Mirror
Motor -
Driver
A9A
Outside
Rearview
Mirror -
Driver
L O C
D E S C

4677135

Outside Rearview Mirror Schematics (Passenger (A45))

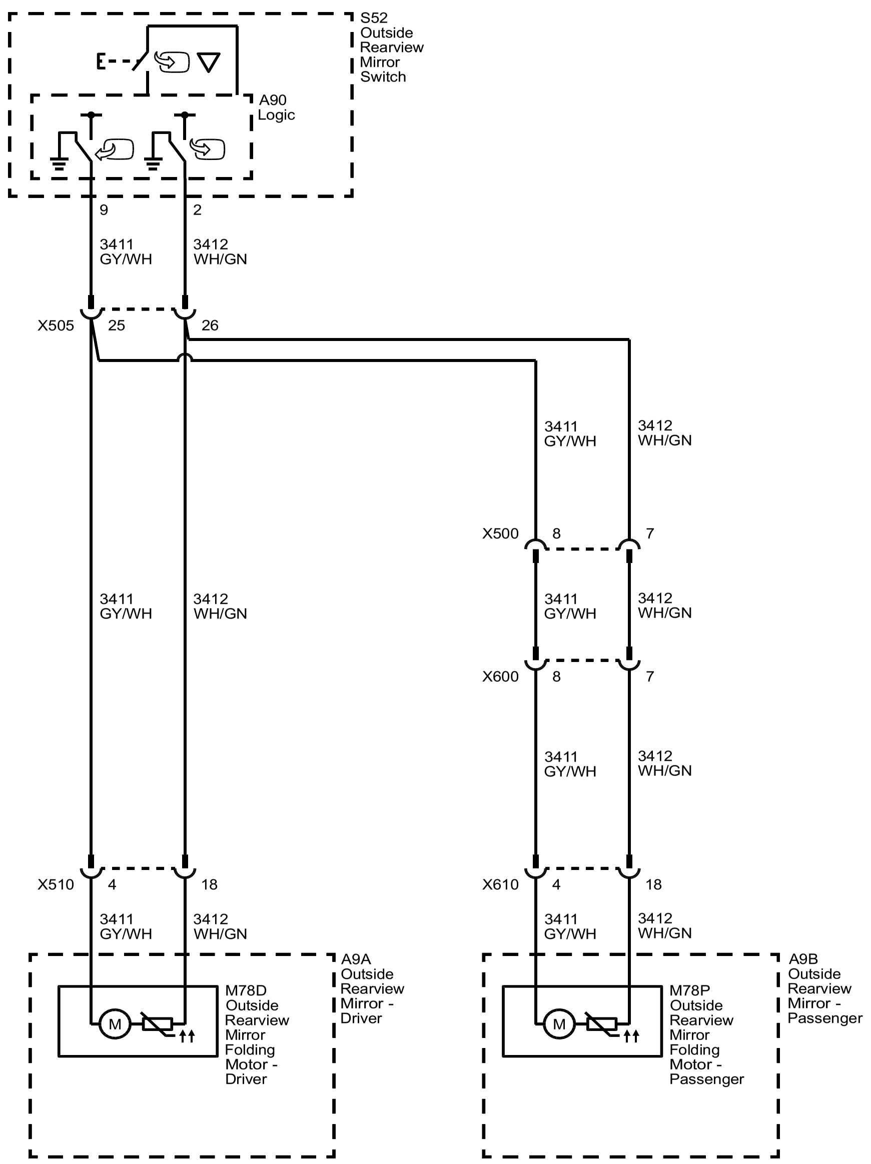

4677136
L O C
D E S C
X51R Fuse Block - Instrument Panel Right
B+
F42DR 30A
X2 20
1340 RD/WH
X600 1
1340 RD/WH
X606 27
1340 RD/WH
X1 4
B+
X1 1
1250 BK
G312
S52 Outside Rearview Mirror Switch
K40 Seat Memory Control Module
7530 GN/WH
X2 9
5V
S79P Window Switch - Passenger
A90 Logic
X2
DL3/DQS
DL3/DQS
1
7
11
4
5
6
8
2
3
3413 YE/WH
3414 BU/GY
3403 VT/WH
3399 YE/RD
3401 BU/YE
3400 BK/GN
3396 GN/BK
3397 YE/VT
3398 WH
X605
8
9
13
12
10
14
11
6
7
3413 YE/WH
3414 BU/GY
3403 VT/WH
3399 YE/RD
3401 BU/YE
3400 BK/GN
3396 GN/BK
3397 YE/VT
3398 WH
X610
4
18
7
17
14
3
10
9
12
3413 BU
3414 YE
3403 BU/BK
3399 GN
3401 BN
3400 BN
3396 GY/BK
3397 OG/BK
3398 WH
A9B Outside Rearview Mirror - Passenger
M78P Outside Rearview Mirror Folding Motor - Passenger
2
1
M
M77P Outside Rearview Mirror Motor - Passenger
5
7
3
1
8
2
4
M
M

Outside Rearview Mirror Schematics (Position (DL3, DL8, DPN or DQS without A45))


B+
X51L
Fuse Block
- Instrument
Panel Left
F8DL
10A
X1
16
1940
RD/VT
X500
40
J519
12
S52
Outside
Rearview
Mirror
Switch
DL3/DQS
A90
Logic
B+
L
o
R
7
3
10
1
8
4
5
3390
VT/BU
3391
YE/BN
3389
BN/BK
3397
YE/VT
3398
WH
3396
GN/BK
X505
22
6
7
5
X506
43
44
42
1150
BK
X500
38
4
36
X600
38
4
36
X510
9
12
10
3390
BU/WH
3391
WH
3389
GN/WH
X610
9
12
10
3397
OG/BK
3398
WH
3396
GY/BK
8
4
2
M
M77D
Outside Rearview
Mirror Motor -
Driver
A9A
Outside
Rearview
Mirror -
Driver
2
4
8
M77P
Outside Rearview
Mirror Motor -
Passenger
A9B
Outside
Rearview
Mirror -
Passenger
G311
LOC
DESC

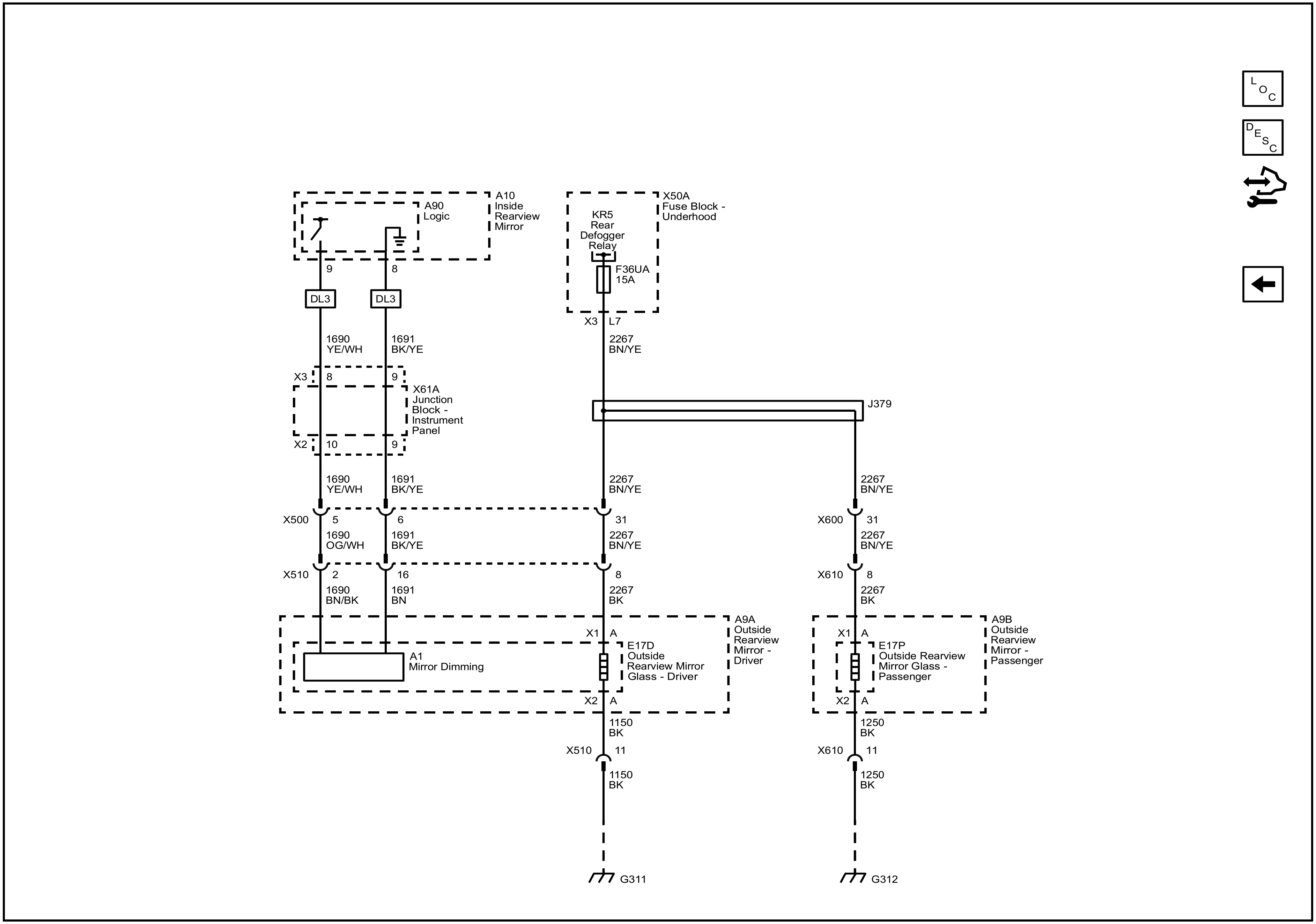
4677137

Outside Rearview Mirror Schematics (Folding (DL3 or DQS without A45))


S52
Outside
Rearview
Mirror
Switch
A90
Logic
9
2
3411
GY/WH
3412
WH/GN
X505
25
26
3411
GY/WH
3412
WH/GN
X500
8
7
3411
GY/WH
3412
WH/GN
X600
8
7
3411
GY/WH
3412
WH/GN
3411
GY/WH
3412
WH/GN
X510
4
18
3411
GY/WH
3412
WH/GN
X610
4
18
3411
GY/WH
3412
WH/GN
A9A
Outside
Rearview
Mirror -
Driver
M78D
Outside
Rearview
Mirror
Folding
Motor -
Driver
M
A9B
Outside
Rearview
Mirror -
Passenger
M78P
Outside
Rearview
Mirror
Folding
Motor -
Passenger
M

4677138

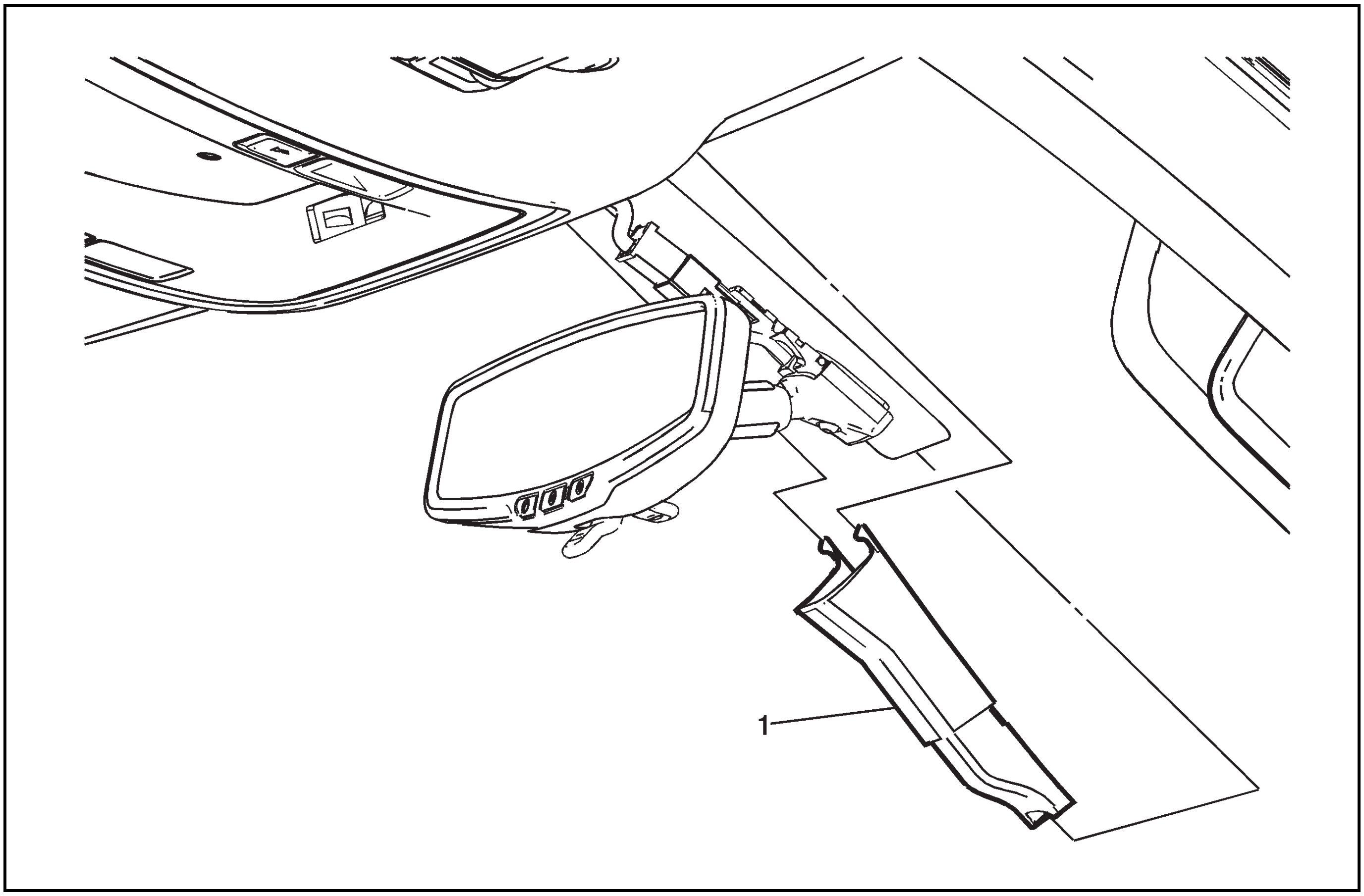
Outside Rearview Mirror Schematics (Dimming (DL3) and Heating (DL8, DL3, DPN or DQS))


LOC
DESC
A10
Inside
Rearview
Mirror
A90
Logic
9
8
DL3
DL3
1690
YE/WH
1691
BK/YE
X3
8
9
X61A
Junction
Block -
Instrument
Panel
X2
10
9
1690
YE/WH
1691
BK/YE
X500
5
6
1690
OG/WH
1691
BK/YE
X510
2
16
1690
BN/BK
1691
BN
A1
Mirror Dimming
X50A
Fuse Block -
Underhood
KR5
Rear
Defogger
Relay
F36UA
15A
X3
L7
2267
BN/YE
J379
2267
BN/YE
31
2267
BN/YE
8
2267
BK
X1
A
E17D
Outside
Rearview Mirror
Glass - Driver
X2
A
A9A
Outside
Rearview
Mirror -
Driver
1150
BK
X510
11
1150
BK
G311
2267
BN/YE
X600
31
2267
BN/YE
X610
8
2267
BK
X1
A
E17P
Outside Rearview
Mirror Glass -
Passenger
X2
A
A9B
Outside
Rearview
Mirror -
Passenger
1250
BK
X610
11
1250
BK
G312

4677141

Repair Instructions

Inside Rearview Mirror Wiring Harness Cover Replacement



Inside Rearview Mirror Wiring Harness Cover Replacement

Callout	Component Name
1	Inside Rearview Mirror Wiring Harness Cover **Procedure** Slide the bottom cover up into the top cover and gentle pull down and out from window.

Description and Operation

Automatic Day-Night Mirror Description and Operation

Inside Rearview Mirror with the Automatic Day-Night Feature System Operation

The inside rearview mirror uses 2 photocell sensors. One sensor is the headlight sensor, located on the face side of the mirror. The headlight sensor is used to determine light conditions present at the mirror face. The other sensor is the ambient light sensor, located on the rear of the mirror or windshield side. The ambient light sensor is used to determine the exterior light conditions. With a low exterior light condition detected, and a high light condition from behind the car, at the headlight sensor, the inside rearview mirror will automatically darken the face of the mirror.

In the daytime, the mirror is in a normal state because of the high exterior light condition that is indicated by the ambient light sensor. With the gear selector lever in the REVERSE position and the engine running, backup lamp supply voltage is supplied as an input to the inside rearview mirror. The mirror monitors this input to disable the automatic day-night feature. This allows the driver to see objects in the mirror clearly when backing up, even during the night.

Driver Outside Rearview Mirror with Automatic Day-Night System Operation (If Equipped)

The automatic day-night feature of the driver outside rearview mirror is controlled by the inside rearview mirror. The inside rearview mirror supplies control and low reference to the driver outside rearview mirror. At night, with the automatic day-night feature enabled, the driver outside rearview mirror will automatically darken with the inside rearview mirror to reduce glare from headlamps behind the vehicle.

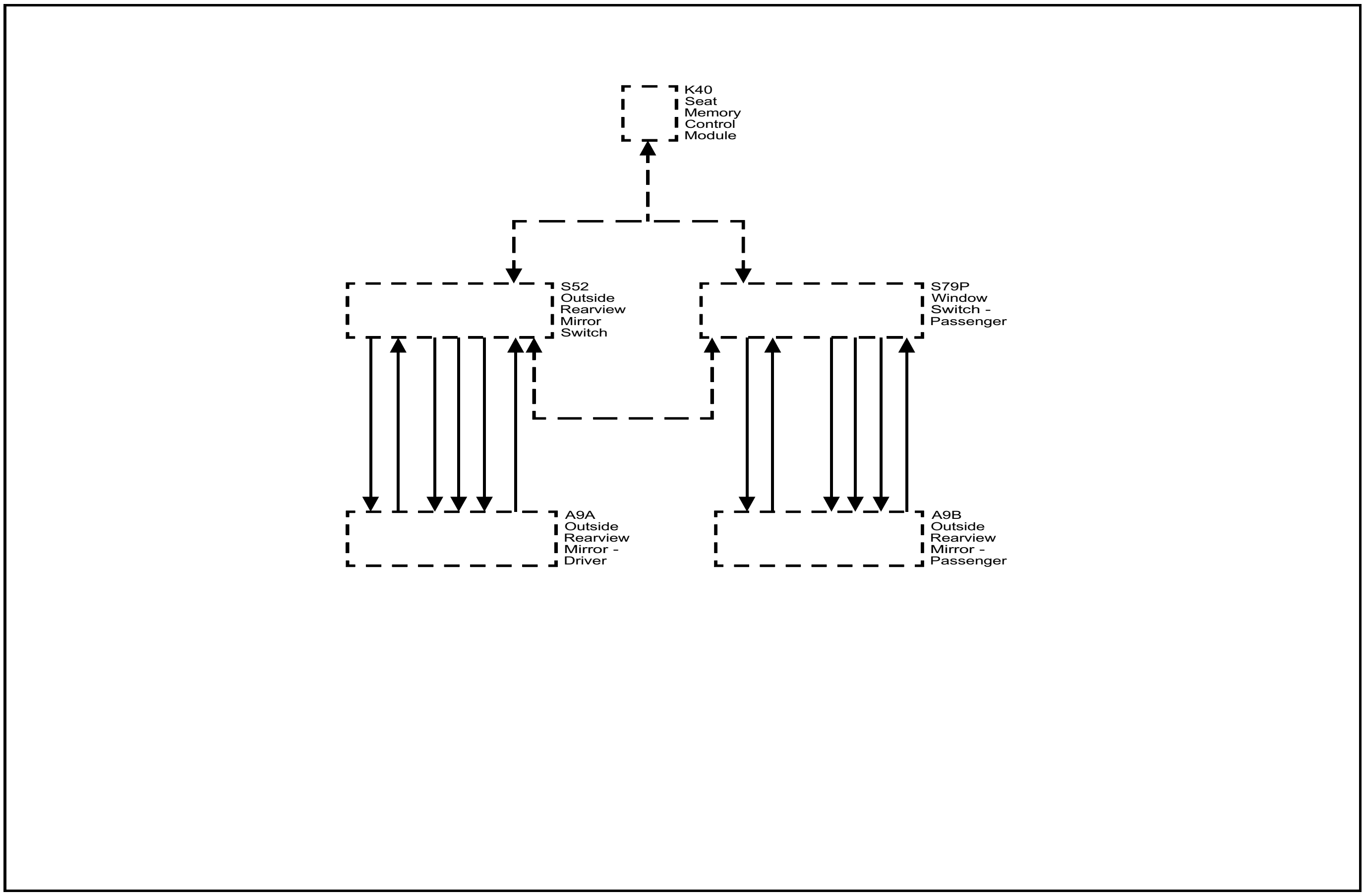
Outside Mirror Description and Operation (With A45)

Power Mirror System Components

The power mirror system consists of the following components:

- Memory Seat Control Module
- Outside Rearview Mirror Switch
- Passenger Window Switch
- Driver Outside Rearview Mirror
- Passenger Outside Rearview Mirror

Power Mirrors with A45 Block Diagram



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Power Mirror System Controls

The outside mirror switch and passenger window switch are on a serial data circuit with the memory seat control module as the master. The mirror select and directional control switches are inputs to the memory seat module through the serial data circuit. When the memory seat module receives switch inputs from the outside mirror switch, mirror output commands are sent to the appropriate switch through the serial data circuit. The outside mirror switch and passenger window switch control the left and right outside rear view mirrors through bi-directional motor control circuits. The motor control circuits are floating while in an inactive state and the switches will apply power and ground to the control circuits as necessary to move the mirror in the commanded direction.

Mirror position is determined by both horizontal and vertical position sensors in each of the power mirrors. The outside mirror switch and passenger window switch supply a 5 V reference, low reference, and horizontal and vertical position signal circuits to these sensors. The signal circuits are referenced from 5 V by the switches and the signal circuit voltage levels represent the mirror positions. The mirror positions are sent to the memory seat module through the serial data circuit where they are stored for memory mirror operation. When the memory seat module receives a memory recall command, the memory seat module will send the go to position commands to the outside mirror switch and passenger window switch. The switches will then drive the appropriate mirror motors to the commanded position sensor settings.

Heated Mirrors

The heated mirrors are controlled through the rear defog relay. Whenever the rear window defogger is turned on battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

Outside Mirror Description and Operation (Without A45)

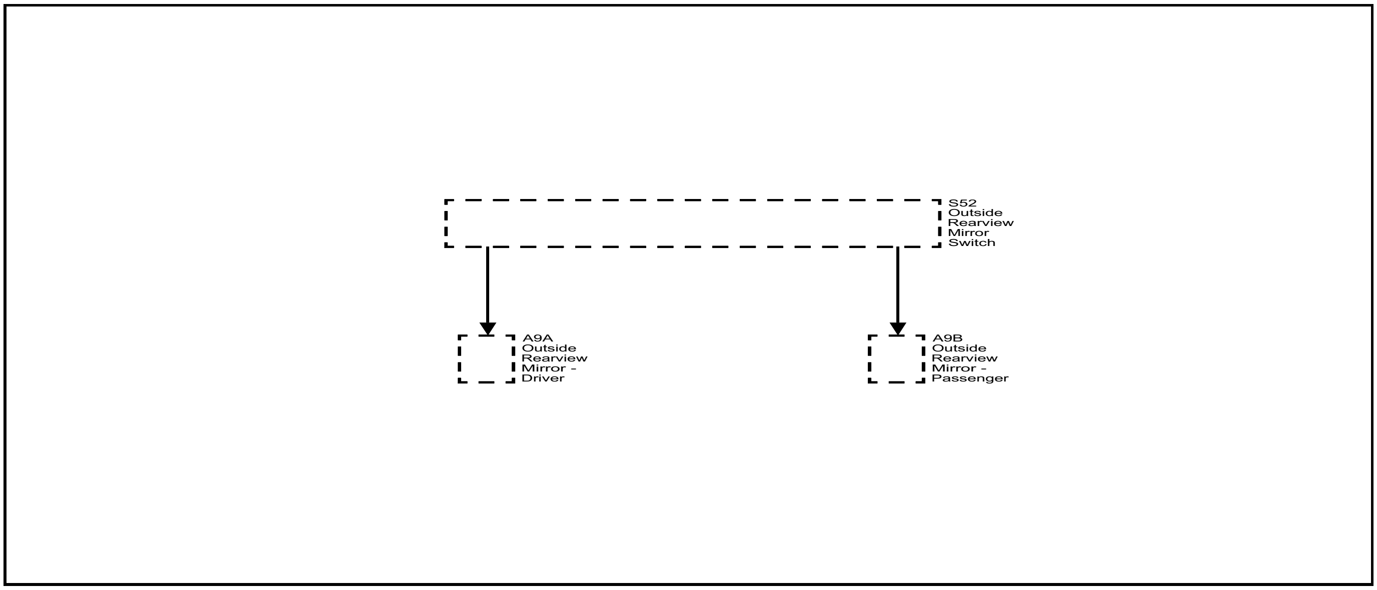
Power Mirror System Components

The power mirror system consists of the following components:

- Mirror direction switch — Controls the left, right, up and down movements of the mirrors
- Mirror select switch — Allows the operator to select the mirror to be moved
- Left outside mirror — Contains both the horizontal and vertical mirror motors
- Right outside mirror — Contains both the horizontal and vertical mirror motors

Each of the outside power mirrors contains 2 motors. The up-down motor operates the vertical directions and the left-right motor operates the horizontal directions. Each of the power mirror motors are internally circuit breaker protected.

Power Mirrors Without A45 Block Diagram



3270441

Power Mirror System Controls

The outside mirror switch incorporates a mirror select switch and a 4 position mirror direction switch.

The mirror select switch allows the driver to select the mirror to be moved by turning the switch to L position enabling the left outside mirror or turning the switch to R position enabling the right outside mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The outside mirror switch receives power through the battery positive voltage circuit from the underhood fuse block. The outside mirror switch also receives a constant ground.

The 4 positions of the direction switch have multiple switch contacts. When not in use, the directional contacts are isolated from any circuit. Each of the contacts are connected to opposing sides of the appropriate mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch, L or R.

If the mirror select switch is placed in the L position and the up switch is pressed, battery voltage will be supplied to the driver outside mirror vertical motor through the driver mirror motor up control circuit and return to the mirror switch through the driver mirror motor left/down control circuit, then to ground and the mirror will move up. If the down switch is pressed, the driver mirror motor left/down control circuit supplies battery voltage and the driver mirror motor up control circuit completes the path to the mirror switch, then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. Placing the mirror control switch in opposing positions, left/right or up/down, will reverse the voltage polarity to the mirror motor, utilizing the same circuits and the mirror will move accordingly.

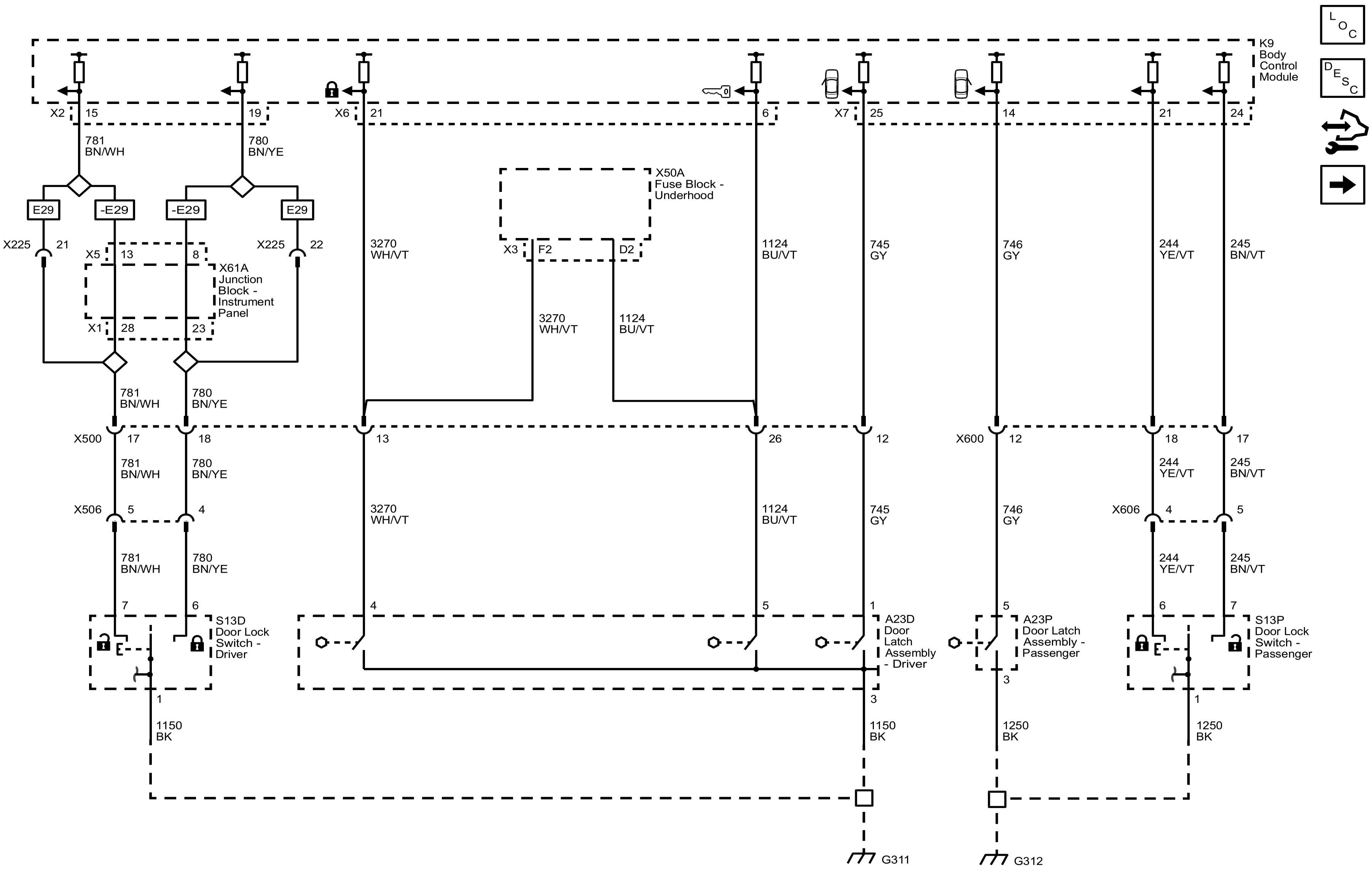
Heated Mirrors

The heated mirrors are controlled through the rear defog relay. Whenever the rear window defogger is turned ON, battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

Vehicle Access

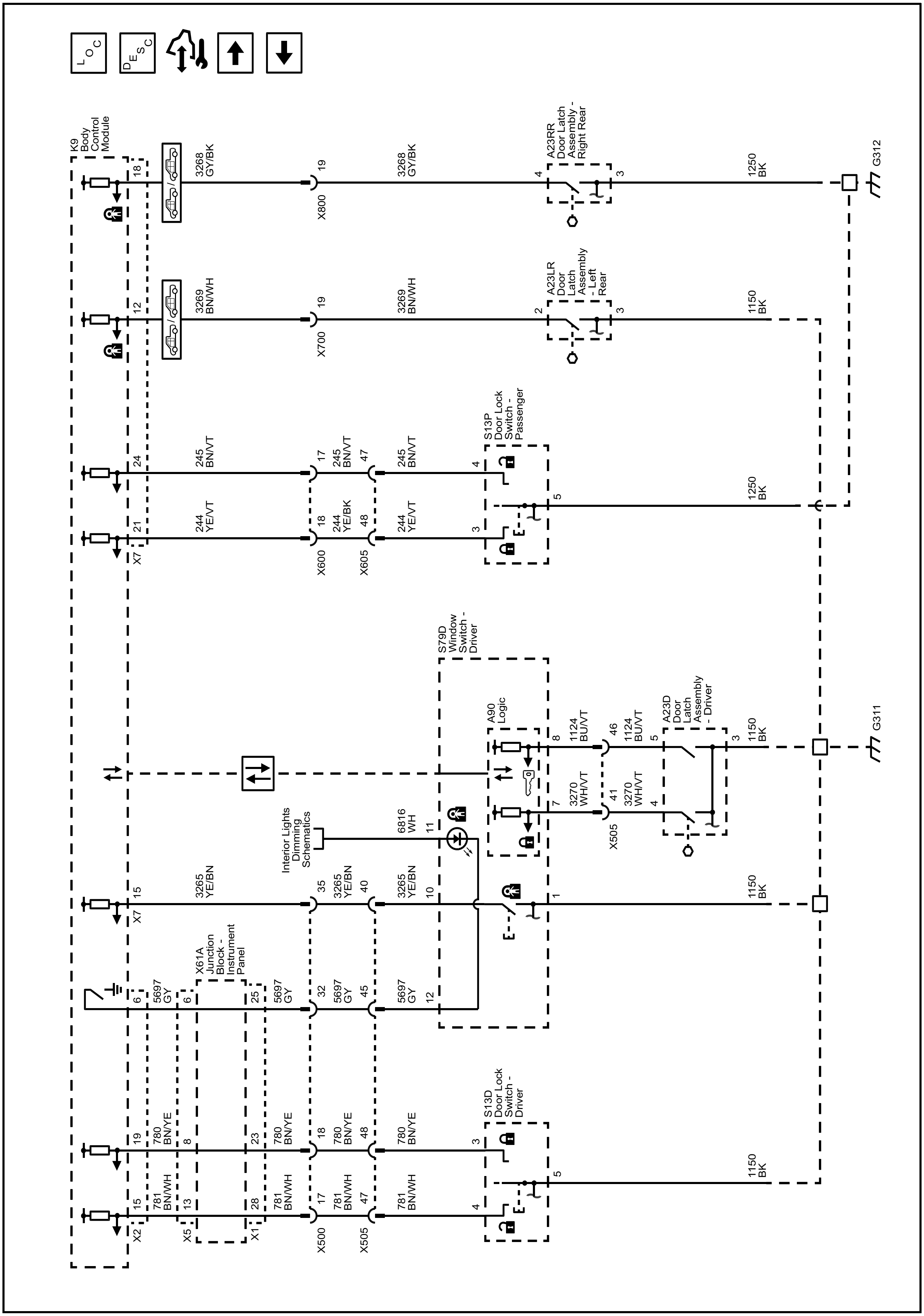
Schematic and Routing Diagrams

Door Lock/Indicator Schematics (Switches and Indicators (without A31))

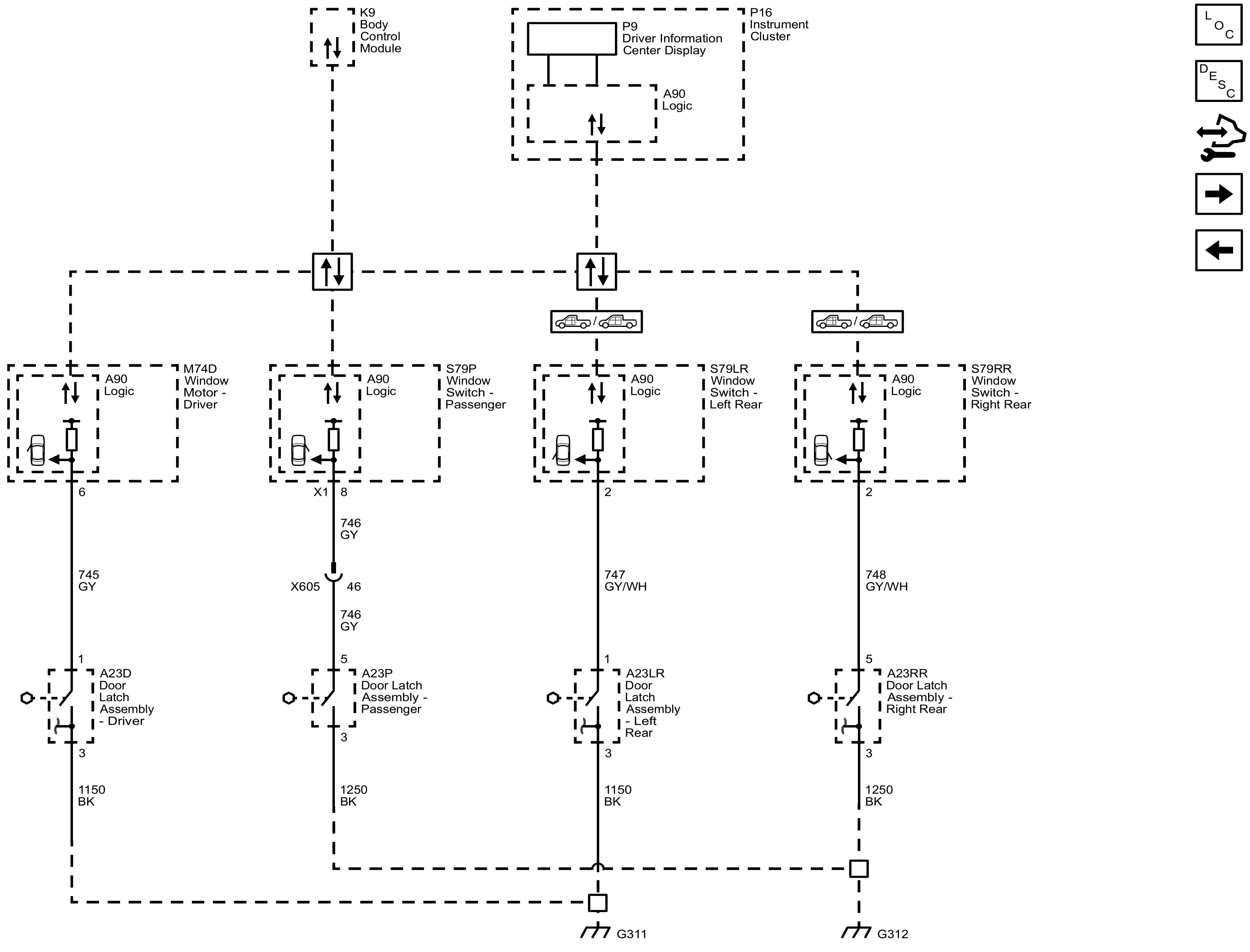

K9
Body
Control
Module
X2
15
19
X6
21
6
X7
25
14
21
24
781
BN/WH
780
BN/YE
E29
-E29
-E29
E29
X225
21
X5
13
8
X225
22
X61A
Junction
Block -
Instrument
Panel
X1
28
23
3270
WH/VT
X50A
Fuse Block -
Underhood
X3
F2
D2
3270
WH/VT
1124
BU/VT
1124
BU/VT
745
GY
746
GY
244
YE/VT
245
BN/VT
781
BN/WH
780
BN/YE
X500
17
18
13
26
12
X600
12
18
17
781
BN/WH
780
BN/YE
244
YE/VT
245
BN/VT
X506
5
4
3270
WH/VT
1124
BU/VT
745
GY
746
GY
X606
4
5
781
BN/WH
780
BN/YE
244
YE/VT
245
BN/VT
7
6
4
5
1
5
6
7
S13D
Door Lock
Switch -
Driver
A23D
Door
Latch
Assembly
- Driver
A23P
Door Latch
Assembly -
Passenger
S13P
Door Lock
Switch -
Passenger
1
3
3
1
1150
BK
1150
BK
1250
BK
1250
BK
G311
G312
L O C
D E S C

4677144

Door Lock/Indicator Schematics (Switches and Child Lock Status (A31))

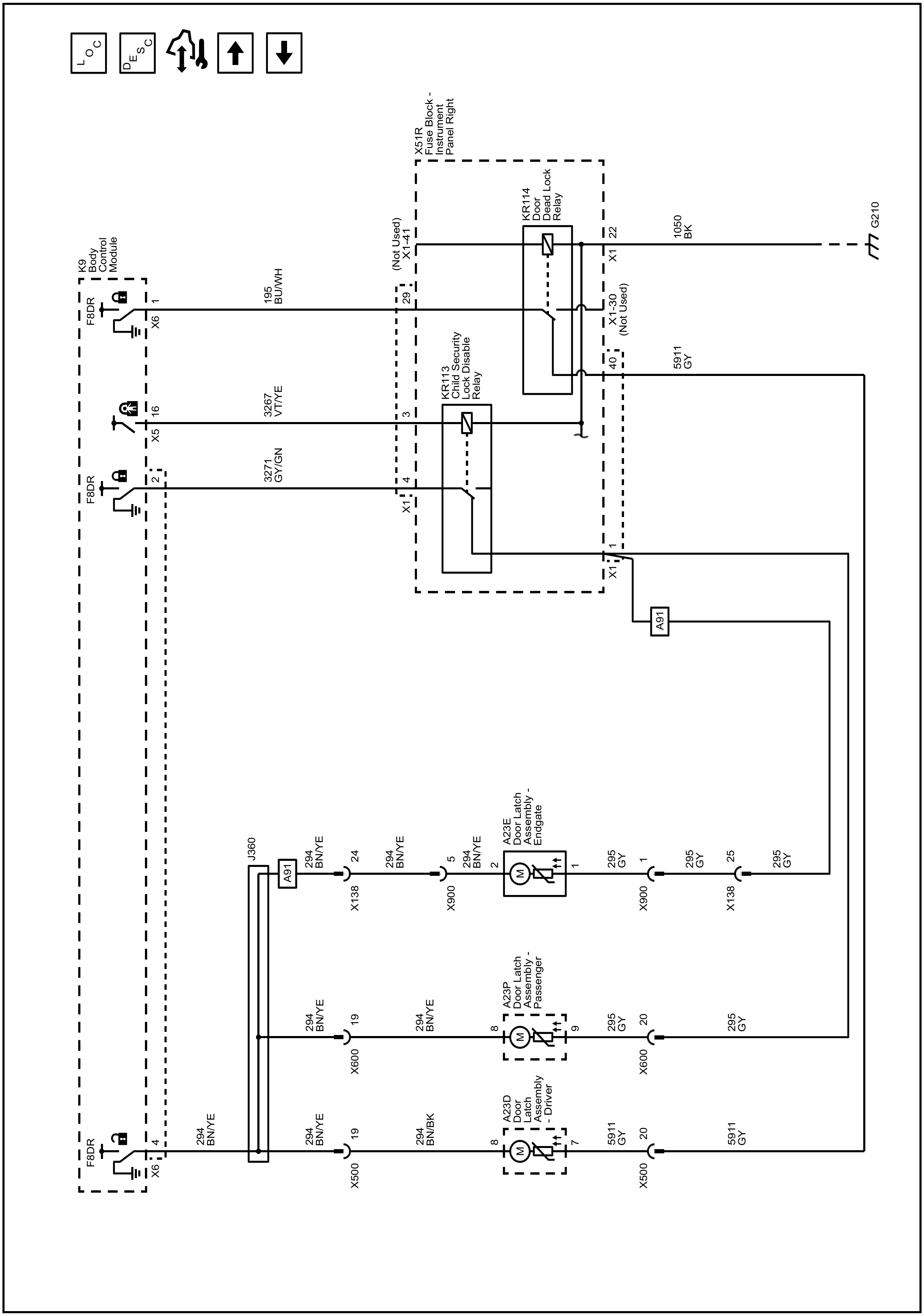

4677145
K9 Body Control Module
18
3268 GY/BK
X800
19
A23RR Door Latch Assembly - Right Rear
4
3
1250 BK
G312
12
3269 BN/WH
X700
A23LR Door Latch Assembly - Left Rear
2
1150 BK
24
245 BN/VT
17
47
S13P Door Lock Switch - Passenger
5
21
244 YE/VT
244 YE/BK
18
48
X7
X600
X605
S79D Window Switch - Driver
A90 Logic
8
1124 BU/VT
46
A23D Door Latch Assembly - Driver
G311
7
3270 WH/VT
41
X505
Interior Lights Dimming Schematics
6816 WH
11
15
3265 YE/BN
35
40
10
1
X61A Junction Block - Instrument Panel
6
5697 GY
25
32
45
12
S13D Door Lock Switch - Driver
19
780 BN/YE
8
23
781 BN/WH
13
28
X2
X5
X1
X500

Door Lock/Indicator Schematics (Indicators (A31))

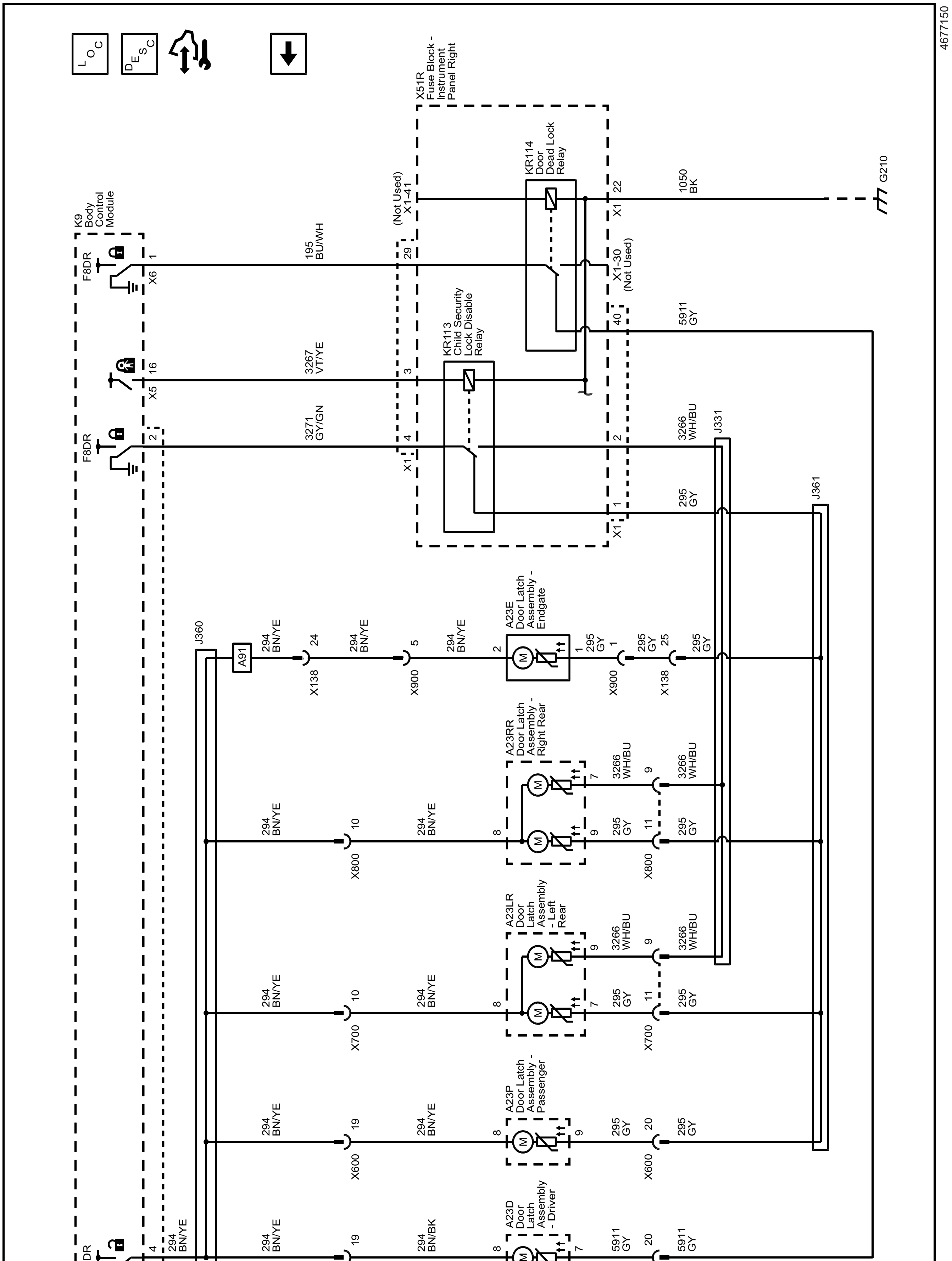

K9
Body
Control
Module
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
M74D
Window
Motor -
Driver
S79P
Window
Switch -
Passenger
S79LR
Window
Switch -
Left Rear
S79RR
Window
Switch -
Right Rear
A90
Logic
6
X1 8
2
2
745
GY
746
GY
X605 46
746
GY
747
GY/WH
748
GY/WH
1
5
1
5
A23D
Door
Latch
Assembly
- Driver
A23P
Door Latch
Assembly -
Passenger
A23LR
Door
Latch
Assembly
- Left
Rear
A23RR
Door Latch
Assembly -
Right Rear
3
1150
BK
1250
BK
G311
G312
L O C
D E S C

4677147

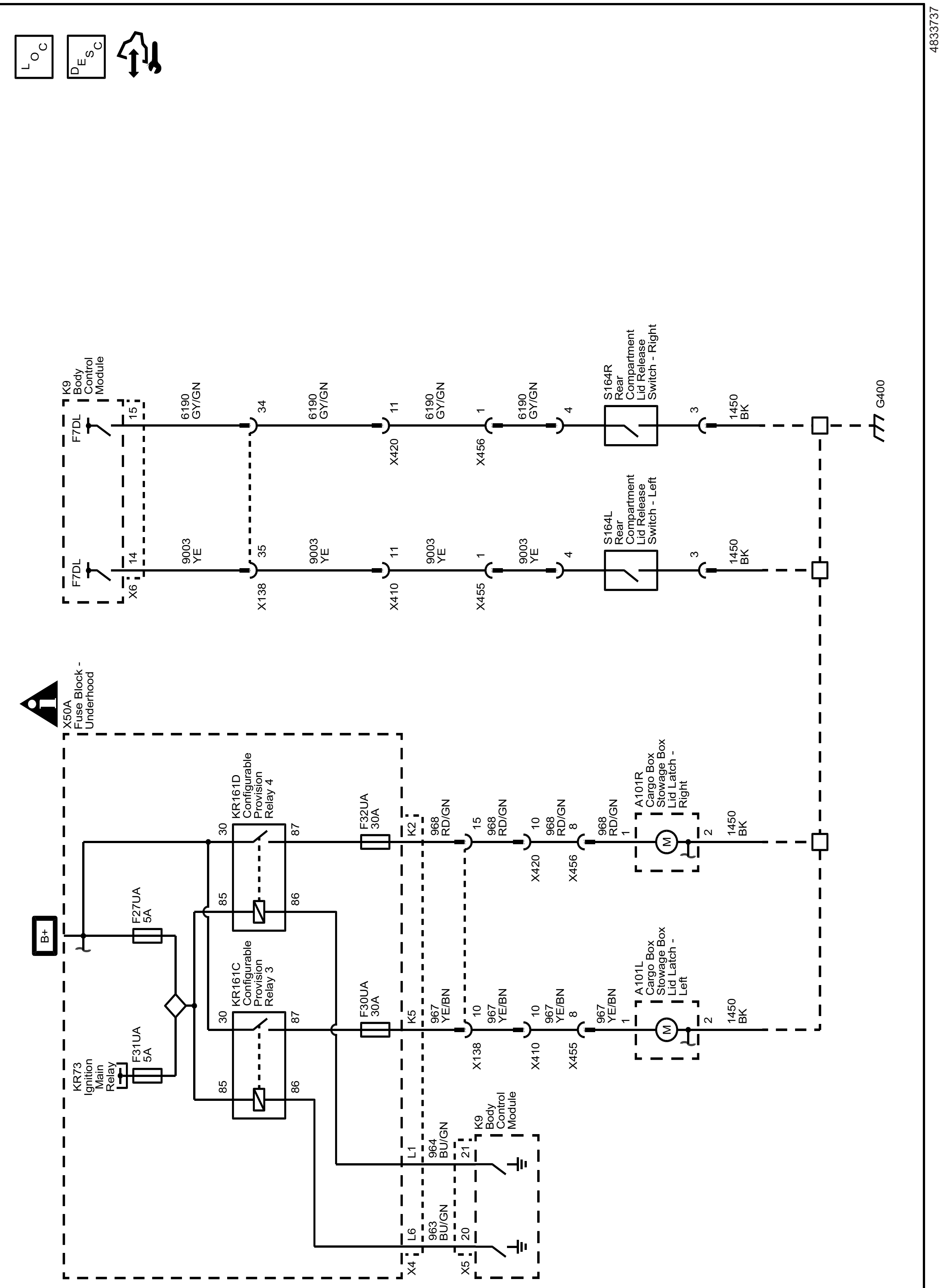
Door Lock/Indicator Schematics (Actuators (2 Door))


4677148
LOC
DESC
K9 Body Control Module
F8DR
X6 1
X5 16
2
X6 4
195 BU/WH
3267 VT/YE
3271 GY/GN
294 BN/YE
X51R Fuse Block - Instrument Panel Right
(Not Used) X1-41
29
3
X1 4
KR114 Door Dead Lock Relay
KR113 Child Security Lock Disable Relay
X1 22
X1-30 (Not Used)
40
X1 1
1050 BK
G210
5911 GY
A91
J360
X138 24
X900 5
A23E Door Latch Assembly - Endgate
2
1
X900 1
X138 25
295 GY
X600 19
A23P Door Latch Assembly - Passenger
8
9
X600 20
X500 19
294 BN/BK
A23D Door Latch Assembly - Driver
7
X500 20
M

Door Lock/Indicator Schematics (Actuators (4 Door))


4677150
LOC
DESC
K9 Body Control Module
F8DR
X6 1
X5 16
2
X6 4
195 BU/WH
3267 VT/YE
3271 GY/GN
294 BN/YE
X51R Fuse Block - Instrument Panel Right
(Not Used) X1-41
29
3
X1 4
KR113 Child Security Lock Disable Relay
KR114 Door Dead Lock Relay
X1 22
X1-30 (Not Used)
40
2
X1 1
1050 BK
G210
5911 GY
3266 WH/BU
295 GY
J331
J361
J360
A91
X138 24
X900 5
2
A23E Door Latch Assembly - Endgate
M
1
X900 1
X138 25
A23RR Door Latch Assembly - Right Rear
X800 10
8
7
9
X800 9
X800 11
A23LR Door Latch Assembly - Left Rear
X700 10
8
9
7
X700 9
X700 11
A23P Door Latch Assembly - Passenger
X600 19
8
9
X600 20
A23D Door Latch Assembly - Driver
X500 19
294 BN/BK
8
7
X500 20

Release Systems Schematics (Cargo Stowage Box (ZYD))


4833737
LOC
DESC
B+
X50A Fuse Block - Underhood
F27UA 5A
F31UA 5A
KR73 Ignition Main Relay
KR161C Configurable Provision Relay 3
KR161D Configurable Provision Relay 4
30
85
86
87
F30UA 30A
F32UA 30A
K2
K5
L1
L6
X4
X5
21
20
K9 Body Control Module
964 BU/GN
963 BU/GN
968 RD/GN
967 YE/BN
15
10
8
1
2
X138
X420
X410
X456
X455
A101R Cargo Box Stowage Box Lid Latch - Right
A101L Cargo Box Stowage Box Lid Latch - Left
M
1450 BK
G400
K9 Body Control Module
F7DL
X6
14
15
9003 YE
6190 GY/GN
35
34
11
4
3
S164L Rear Compartment Lid Release Switch - Left
S164R Rear Compartment Lid Release Switch - Right

Description and Operation

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

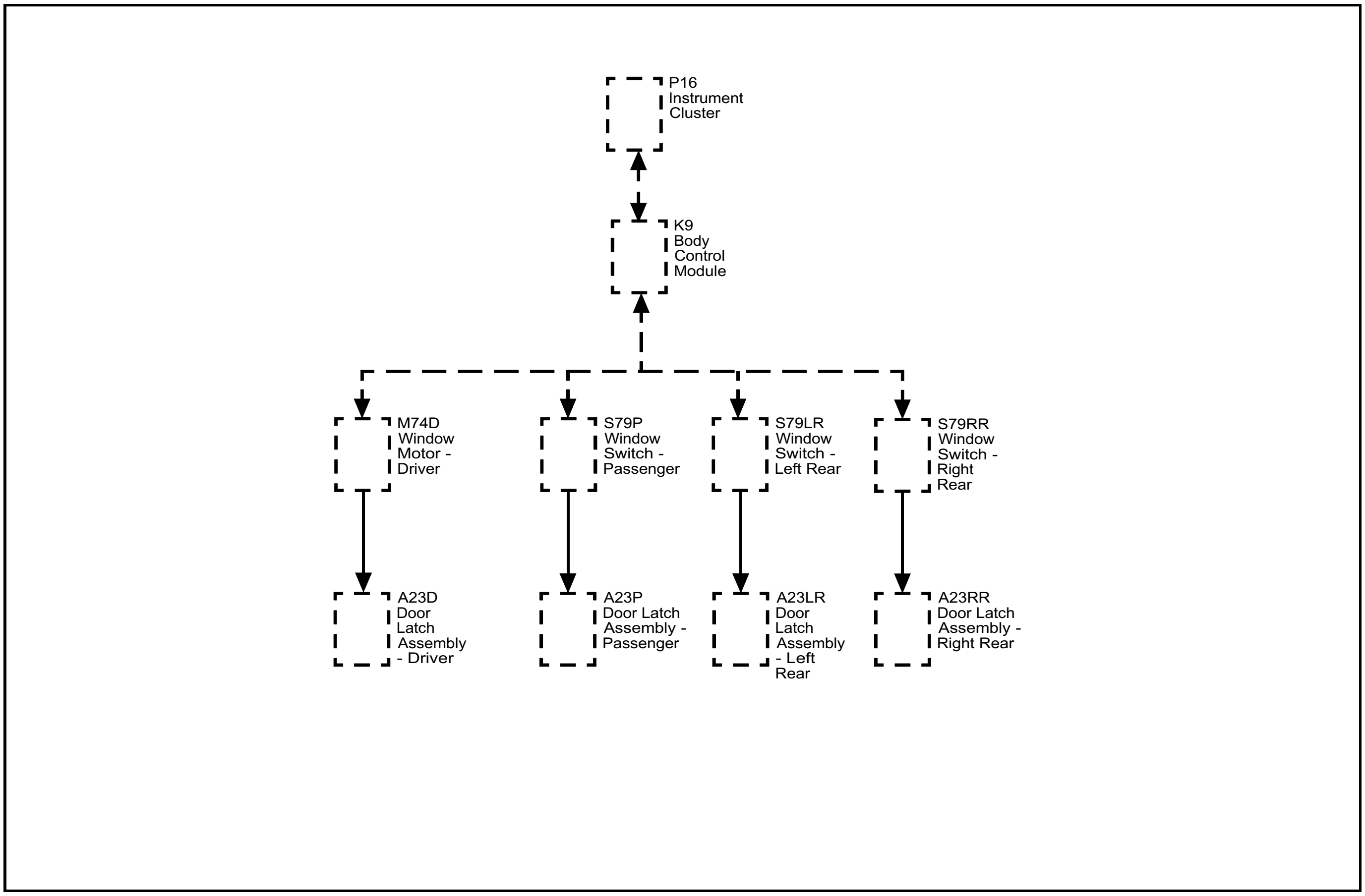
The door ajar indicator system consists of the following components:

- Body control module
- Instrument cluster
- Driver door latch
- Passenger door latch
- Left rear door latch
- Right rear door latch
- Driver window motor (AXG)
- Passenger window switch (AED)
- Left rear window switch (AEQ)
- Right rear window switch (AEQ)

Door Ajar System

Depending upon if the vehicle is a standard cab, extended cab or crew cab and/or is equipped with express up/down power windows or standard express down power windows or manual crank windows affects how the driver and passenger door ajar signal circuits are configured and monitored.

Door Ajar Indicator With AXG/AED/AEQ Block Diagram


P16
Instrument
Cluster
K9
Body
Control
Module
M74D
Window
Motor -
Driver
S79P
Window
Switch -
Passenger
S79LR
Window
Switch -
Left Rear
S79RR
Window
Switch -
Right
Rear
A23D
Door
Latch
Assembly
- Driver
A23P
Door Latch
Assembly -
Passenger
A23LR
Door
Latch
Assembly
- Left
Rear
A23RR
Door Latch
Assembly -
Right Rear

3270438

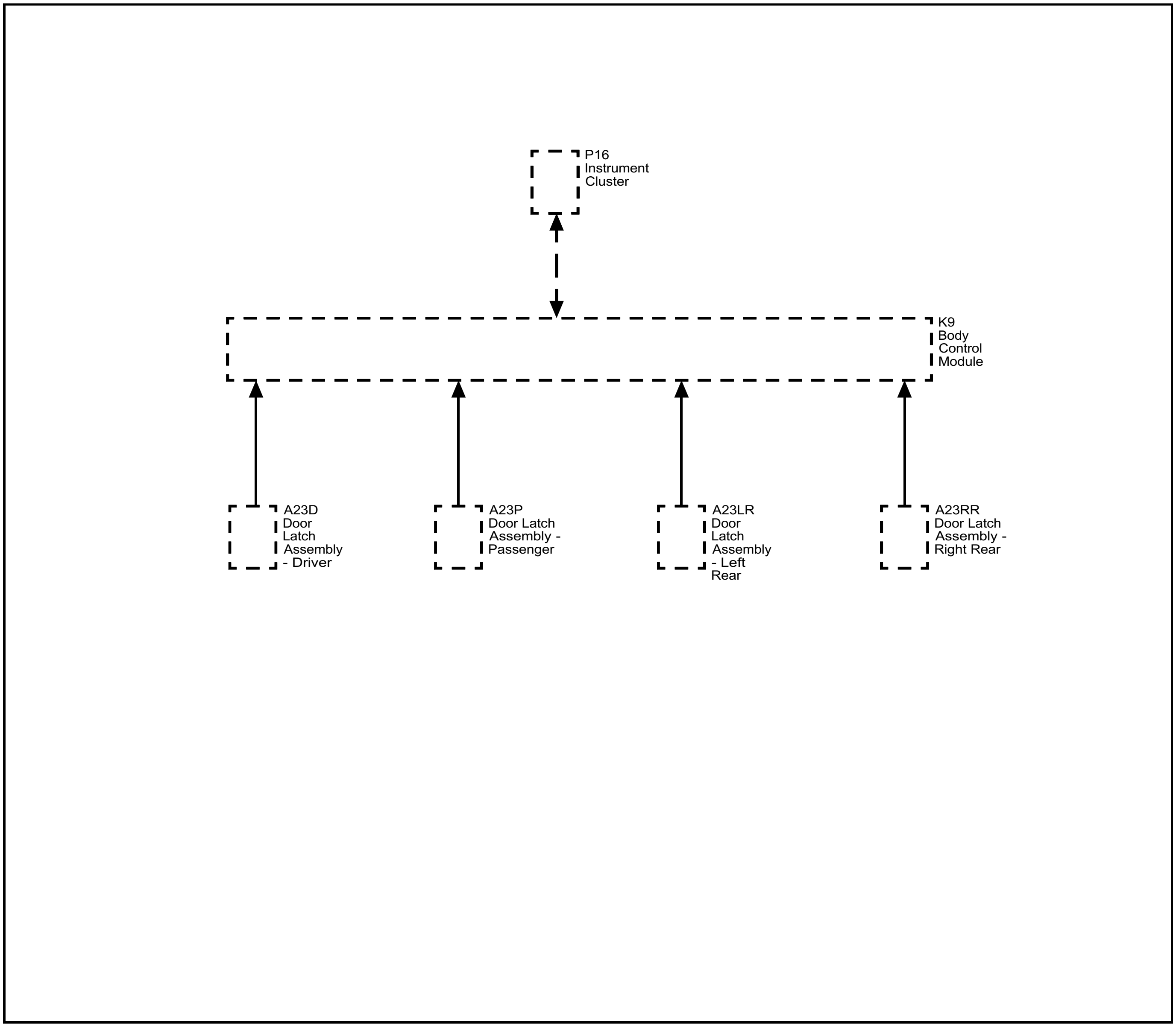
Driver Door Ajar (With AXG)

The driver window motor will provide a 12V signal to the driver door ajar switch within the door latch to indicate the status of the door. When the driver door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The driver window motor will detect the voltage drop in the ajar signal circuit and will send a serial data message to the body control module. The body control module will then send a message to the instrument cluster which will illuminate the door ajar icon.

Passenger and Rear Doors Ajar (With AED and AEQ)

The passenger and rear window switches provide a 12V signal to the respective door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The window switch will detect the voltage drop in the ajar signal circuit and will send a serial data message to the body control module. The body control module will then send a message to the instrument cluster which will illuminate the door ajar icon.

Door Ajar Indicator Block Diagram


P16 Instrument Cluster
K9 Body Control Module
A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
A23LR Door Latch Assembly - Left Rear
A23RR Door Latch Assembly - Right Rear

3668690

Driver, Passenger and Rear Doors Ajar (Without AXG, AED or AEQ)

The body control module provides a 12V signal to each door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The body control module will detect the voltage drop in the ajar signal circuit and will send a message to the instrument cluster which will illuminate the door ajar icon

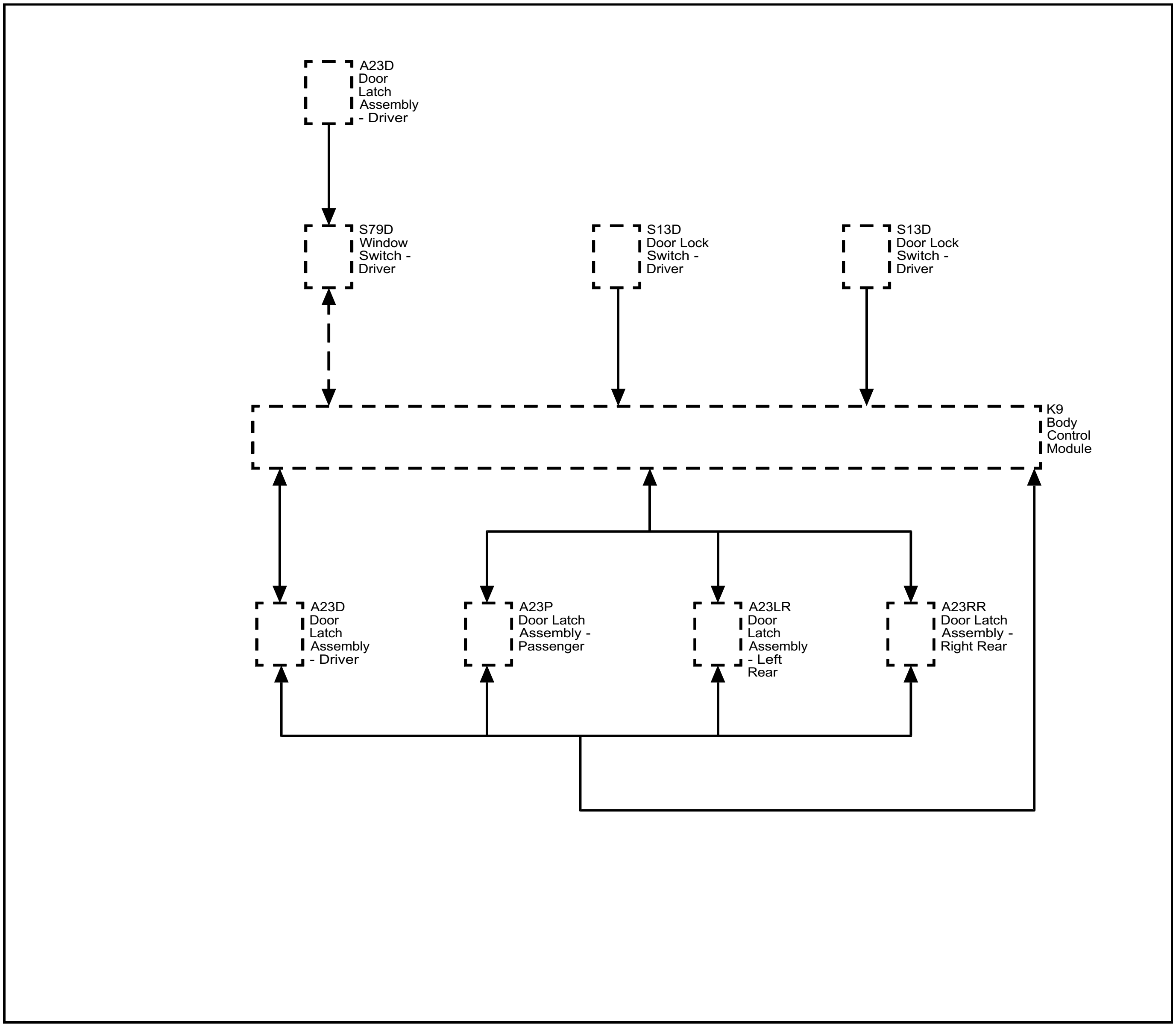
Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Child door lockout switch (Part of the driver window switch)
- Passenger door lock switch
- Front door lock actuators
- Rear door lock actuators (Extended and crew cab models)
- Body control module (BCM)
- Keyless entry control module
- Keyless entry transmitter
- Right instrument panel fuse block (Contains child security lock disable PCB relay)

Power Door Locks Block Diagram


A23D Door Latch Assembly - Driver
S79D Window Switch - Driver
S13D Door Lock Switch - Driver
S13D Door Lock Switch - Driver
K9 Body Control Module
A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
A23LR Door Latch Assembly - Left Rear
A23RR Door Latch Assembly - Right Rear

3623709

Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A door lock switch LOCK or UNLOCK activation
- A keyless entry transmitter activation

Door Lock Operation

The BCM supplies a 12 volt signal to the lock and unlock signal circuits of the driver and passenger door lock switches. When the appropriate switch is pressed, a contact within the door lock switch closes providing a ground path for the signal circuit. The BCM will detect the voltage drop in the signal and will command the doors to perform the lock or unlock functions.

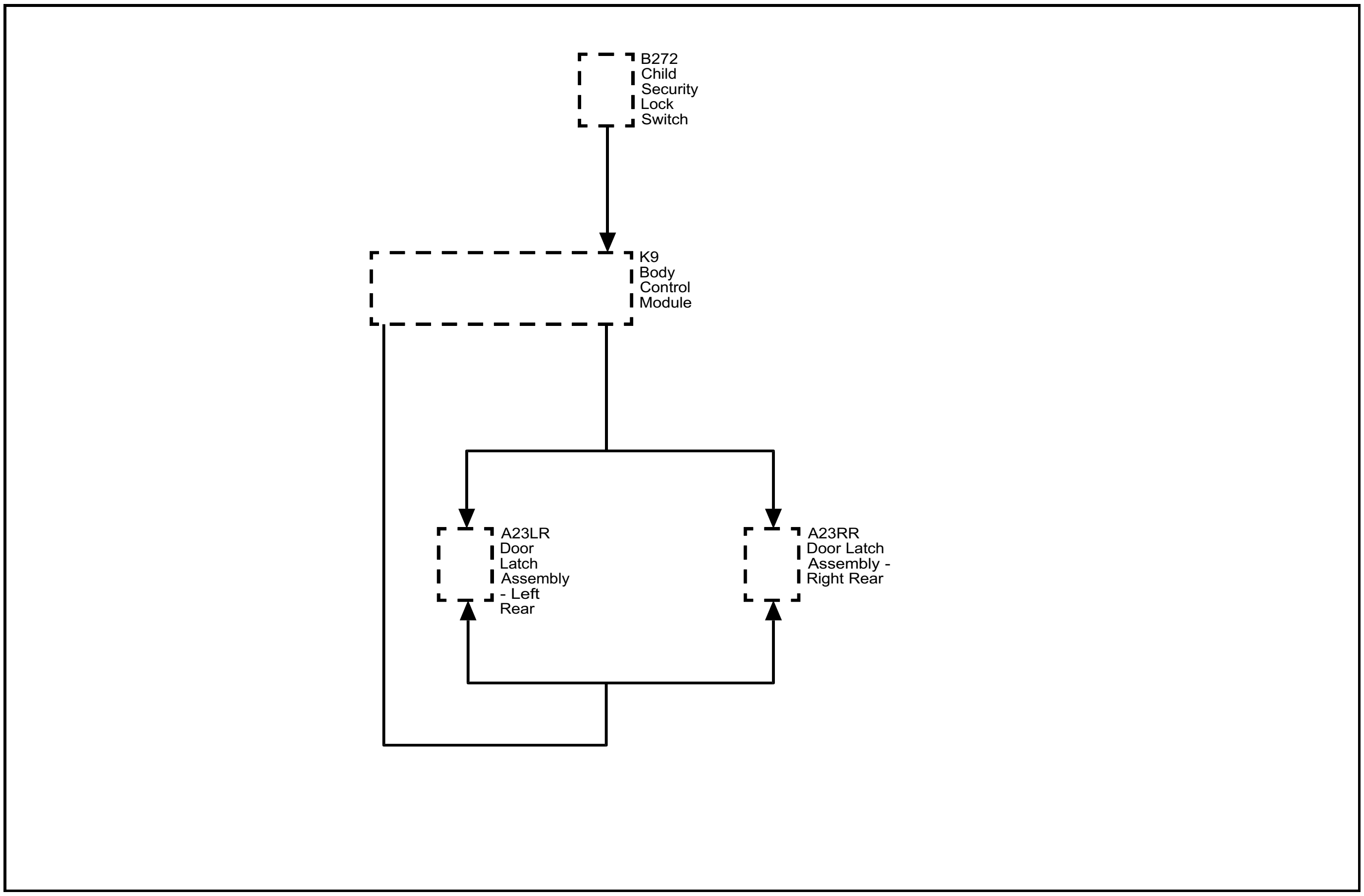
The BCM may also receive a LOCK or UNLOCK command from the keyless entry control module, refer to *CELL Link Error - Link target cell (cell ID 52297) is invalid for this publication.* for information on the keyless entry system

The BCM, upon receipt of a lock switch lock or unlock signal, will supply voltage to the door lock actuator lock or unlock control circuits. Since the opposite side of the lock actuator is connected to ground through the other lock actuator control circuit, the doors will then lock or unlock as commanded.

The following three circuits are used to operate the lock:

- Driver door unlock
- Passenger doors unlock
- All doors lock

Power Door Child Lock Block Diagram


B272 Child Security Lock Switch
K9 Body Control Module
A23LR Door Latch Assembly - Left Rear
A23RR Door Latch Assembly - Right Rear
3640353

Child Security Lockout System Operation

The child door lockout switch on the driver window switch controls the child locks on the rear doors. The lockout switch is an input to the body control module and the body control module controls the door lock security relay. When the body control module receives a command from the child door lockout switch, it will apply voltage to the child security lock disable relay coil, this will energize the relay and the contact within the relay will then direct the voltage to activate the left rear and right rear child locks and then isolate them from the normal door lock system to prevent the rear doors from being opened by using the interior rear door handles. An indicator will also illuminate to alert the driver that the child lockout system has been activated. Pushing the switch again will return normal function to the rear interior door handles and the indicator will go out.

The body control module monitors the voltage level of the child security motor status signal circuit, when the child locks have been activated, the contacts of the child security motor status switch (internal to the rear door latch) will close providing a ground path for the signal circuit pulling the voltage low. It is in this manner that the body control module is able to determine if the rear door latch has been successfully been locked out.

The body control module monitors the status of the child security lockout system, when the body control module detects a fault in the system, it will command the child lockout indicator to flash ON and OFF for 30 seconds to alert the driver that the child security lockout system may not be functioning properly.

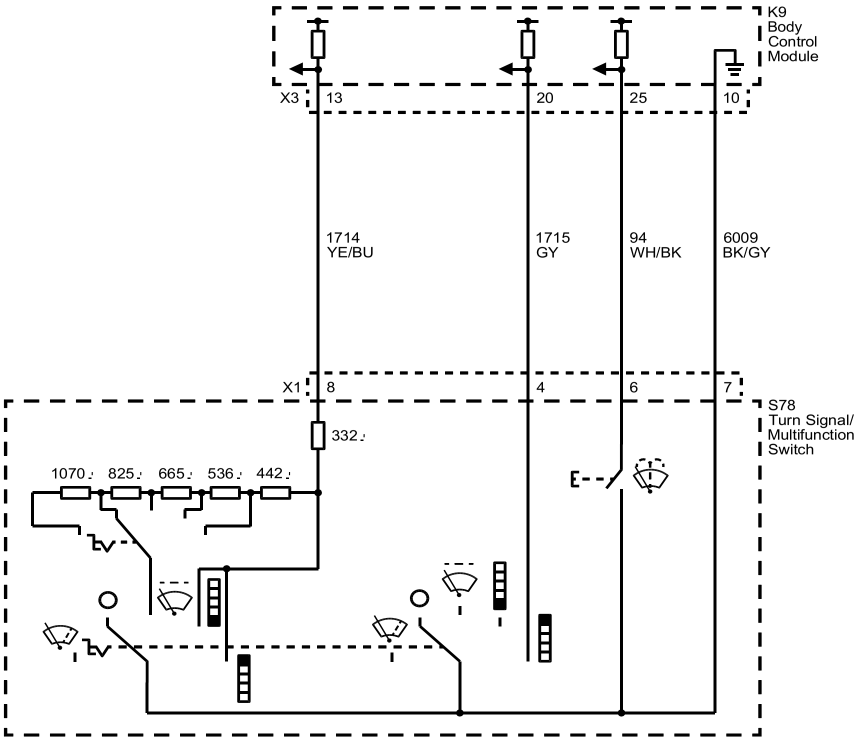
The body control module will command the child lockout indicator to flash ON and OFF for the following reasons:

- An open/high resistance in either child security motor status signal circuit
- The body control module detects that one or both rear door latches have not activated and are not locked out
- The body control module detects a short to ground or an open/high resistance in the child security lock disable relay control circuit
- A malfunctioning child security lock disable relay
- An open/high resistance in the child security lock motor control circuit

Wipers and Washers

Schematic and Routing Diagrams

Wiper/Washer Schematics (Controls)


K9
Body
Control
Module
X3
13
20
25
10
1714
YE/BU
1715
GY
94
WH/BK
6009
BK/GY
X1
8
4
6
7
S78
Turn Signal/
Multifunction
Switch
332 Ω
1070 Ω
825 Ω
665 Ω
536 Ω
442 Ω

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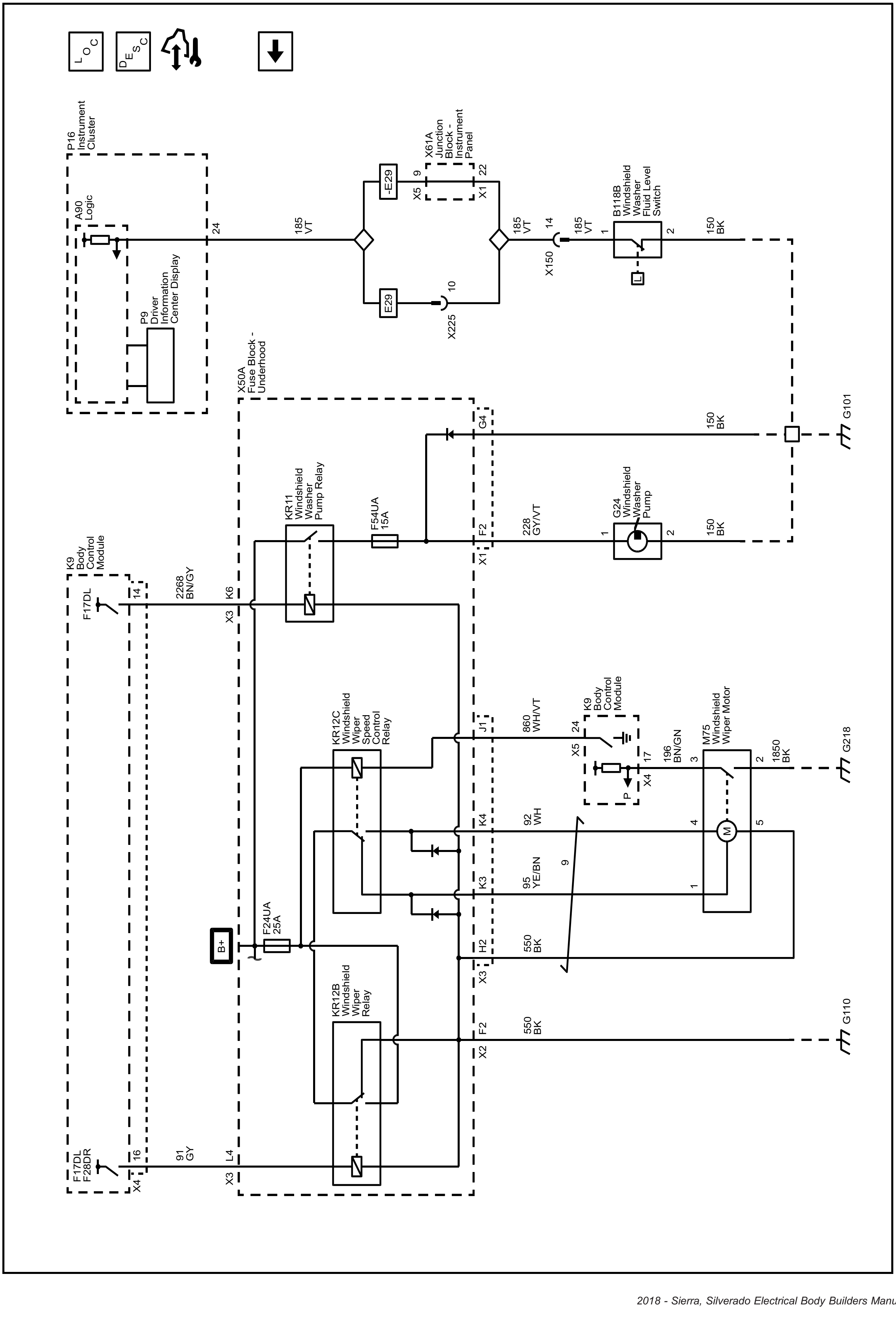
Wiper/Washer Schematics (Wiper Motor and Washer Pump)


4677155
LOC
DESC
P16 Instrument Cluster
A90 Logic
P9 Driver Information Center Display
24
185 VT
-E29
X5 9
X61A Junction Block - Instrument Panel
X1 22
E29
10
X225
185 VT
14
X150
185 VT
1
B118B Windshield Washer Fluid Level Switch
2
150 BK
X50A Fuse Block - Underhood
G4
150 BK
G101
K9 Body Control Module
F17DL
14
2268 BN/GY
X3 K6
KR11 Windshield Washer Pump Relay
F54UA 15A
F2 X1
228 GY/VT
1
G24 Windshield Washer Pump
2
150 BK
KR12C Windshield Wiper Speed Control Relay
J1
860 WH/VT
X5 24
K9 Body Control Module
X4 17
P
196 BN/GN
3
M75 Windshield Wiper Motor
2
1850 BK
G218
K4
92 WH
4
M
5
K3
95 YE/BN
9
1
B+
F24UA 25A
H2
550 BK
X3
KR12B Windshield Wiper Relay
F2 X2
550 BK
G110
F17DL F28DR
X4 16
91 GY
X3 L4

]

Description and Operation

Wiper/Washer System Description and Operation

Wiper/Washer System Components

The wiper/washer system consists of the following electrical components:

- Windshield Wiper Relay
- Windshield Wiper Speed Control Relay
- Windshield Washer Pump Relay
- Windshield Washer Fluid Pump
- Windshield Wiper Motor
- Window Wiper/Washer Switch
- Windshield Wiper Motor Fuse
- Windshield Washer Fluid Pump Fuse
- Body Control Module

Windshield Wiper System

The body control module (BCM) determines the front wipe/wash system mode of operation by monitoring several signals from the front wipe/wash switch as indicated in the wiper switch.

The front wipe/wash switch receives a reference ground signal from the BCM. Each input of the BCM provides a switched battery pull-up for each front wiper/washer switch output signal it receives. All the BCM inputs are recognized as active when the wiper switch provides a path to the referenced ground signal. The first signal received by the BCM is the result of 6 resistors in the front wiper switch configured as a resistor ladder network. This signal is connected to a BCM analog to digital input. Depending on the function selected (High, Low, Intermittent 1 thru 5, Mist, Off), the front wiper control switch connects a different set of resistors into the circuit resulting in different voltages appearing on the BCM A/D input. By monitoring this voltage, the BCM determines how to control the wiper motor On/Off Relay. It should be noted that High, Low, and Mist all have the same value on this signal circuit. The second signal received from the front wiper switch is active only when the front wiper switch is in the high speed wiper position. When the wiper switch is not in the high speed position, the switch is open and the signal circuit is pulled to battery by the BCM. When the wiper switch is in the high speed position, the switch pulls the circuit low. The BCM determines how to control the Wiper high/low speed relay from this input. The third signal received from the front wiper switch is from the momentary windshield wash control switch. When the washer switch is not active the switch is open and the signal circuit is pulled to battery by the BCM. When the washer switch is active, the switch pulls the circuit low. The BCM controls the windshield wash and windshield wash activated wiper operation based on this input.

The BCM controls front wiper motor operation through two output signals and the monitoring of one input signal. The two outputs (one high side drive, one low side drive) are used to control two external wiper motor relays: front wiper motor on/off relay: which provides the wiper motor with battery power when it is activated by the high side drive signal (switched battery) from the BCM. When left deactivated, the normally closed contacts provide a ground to the wiper motor. Wiper high/low speed relay: when activated by a low side drive signal (ground) from the BCM, it switches the power supplied by the wiper motors on/off relay to the motors high speed input. When left deactivated, the normally closed contacts connect the power supplied by the wiper motors on/off relay to the motors low speed input. The input used by the BCM is from the park switch located in the wiper motor assembly. When the wiper blades are not in the park position, the wiper park switch is open and the circuit is pulled up to battery by the BCM. When the wiper blades are in the park position at the bottom of the glass, the wiper park switch closes to ground pulling the park signal circuit low.

To initiate low speed operation, the BCM only energizes the front wiper motor on/off relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the wiper motor on/off relay, through the normally closed contacts of the wiper high/low speed relay, to the low speed control circuit of the windshield wiper motor.

Redundant high speed switch pass through. The BCM provides redundant circuitry which places battery power on its wiper motor on/off relay output with activation of its low assertion high speed wiper switch input. The BCM shall be capable of doing this, even if the module has lost all microprocessor control. This redundant circuit shall supply power while in the RUN and CRANK power modes. however; while in the CRANK power mode, the pass through shall only be active if the BCM is NOT in a computer operating properly state.

To initiate high speed operation, the BCM energizes both the front wiper motor on/off relay and the wiper high/low speed relay . This allows battery voltage from the wiper fuse to be applied through the switched contacts of the wiper motor on/off relay, through the switched contacts of the wiper high/low speed relay, to the high speed control circuit of the windshield wiper motor.

Parking the wiper motor. In order to perform an accurate read of the park switch and to ensure the wipers will come to rest while still in the park position, parking of the wipers only occurs while in a low speed wiper mode. This requires that if the wipers are performing a high speed wiper operation at the time they are required to park, the BCM shall transition the Wipers to low speed by deactivating the wiper high/low relay before attempting to park. In order to park the wipers, the BCM monitors the park circuit until the park switch pulls the park circuit to ground. At this time, the BCM will immediately deactivate the wiper motor on/off relay. The relay contacts will switch back to their normally closed position and will apply ground to the wiper motor power inputs through the normally closed contacts of the wiper high/low relay. This deactivates and dynamically brakes the wiper motor in the park position. When the wiper switch is turned to the OFF position while the wiper motor is somewhere in mid-cycle, the BCM will continue to operate the motor until the wipers reach the park position. If the BCM is running the wiper motor and does not see a state transition of the park switch after 8 s, the wipers will stop immediately when the wiper switch is turned to

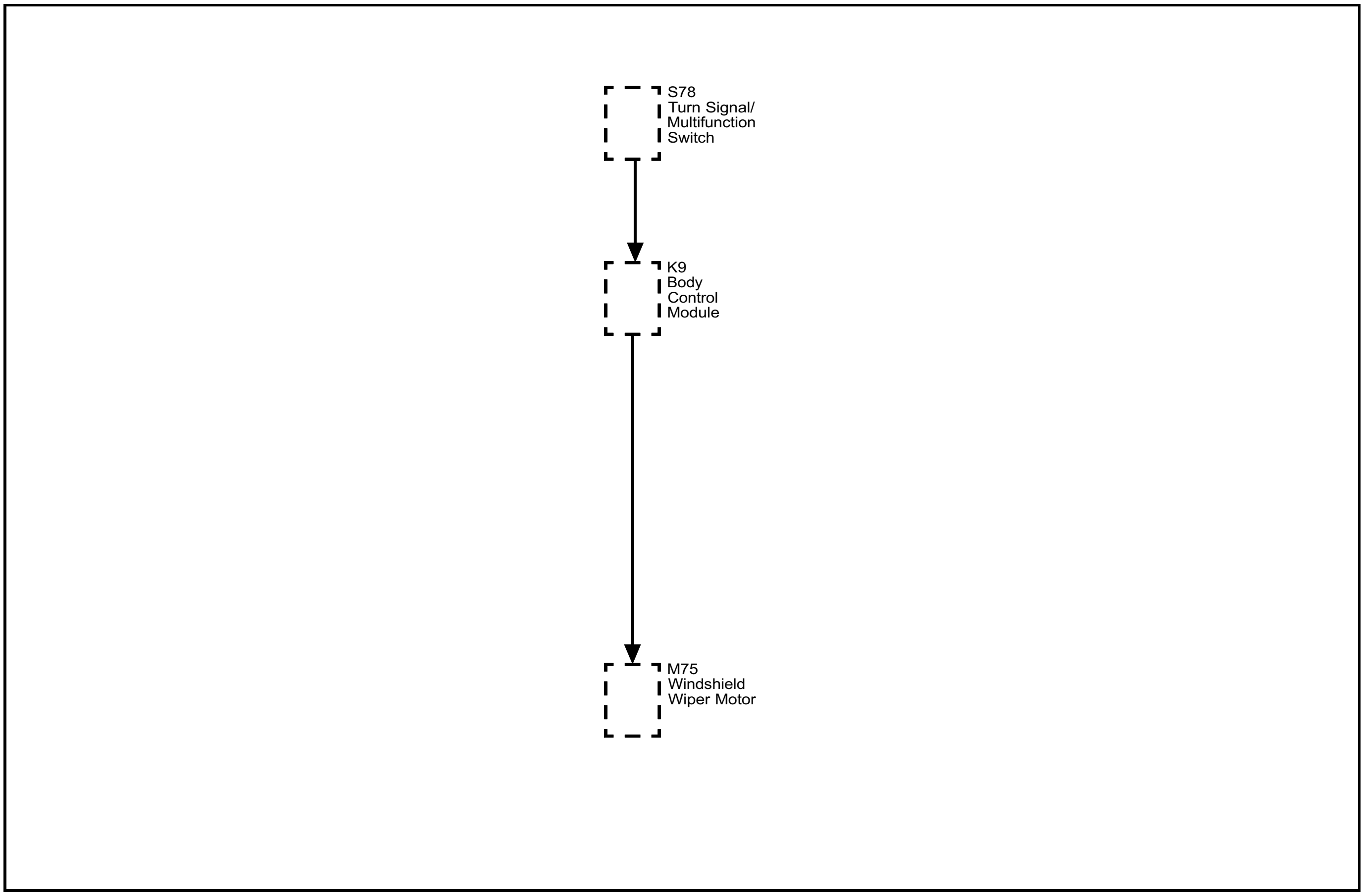
OFF. If the ignition is turned OFF while the wipers are in mid-cycle, the wipers will stop immediately, regardless of position. The BCM will park the wipers next time the ignition is turned ON.

The windshield wiper system MIST operation is identical to LOW speed operation, except that the MIST switch is a press and release type switch. When the wiper switch is moved to the MIST position and released, low speed wiper motor operation is started and will continue until 1 cycle is complete. If the wiper switch is moved to the MIST position and held, the wiper motor will operate in the LOW speed mode until the switch is released.

Windshield wiper intermittent operation is a low speed wiper motor function with a variable delay interval between the wiper motor cycles. The duration of the delay is controlled by the front wiper control switches intermittent 1 thru intermittent 5 settings. The wiper operation is as follows

1. The BCM will initiate a single wipe by activating its front wiper ON/OFF relay output.
2. At the completion of a single wipe, the BCM will park the wipers as described above.
3. The BCM will then pause the wipers in their park position for the time duration associated with intermittent delay switch setting.
4. When the delay time expires repeat Steps 1 and 3 until the system is turned off or taken out of intermittent mode. If the wiper switch is moved from a longer delay interval to a shorter delay interval, the BCM will command an immediate wipe cycle and reset the delay timer to the shorter delay interval.

Intermittent wiper operation may be vehicle speed sensitive. When enabled, the speed compensated intermittent feature causes the intermittent wiper delay intervals to become shorter as a function of increased speed. As vehicle speed is reduced the intervals will become closer to the predetermined



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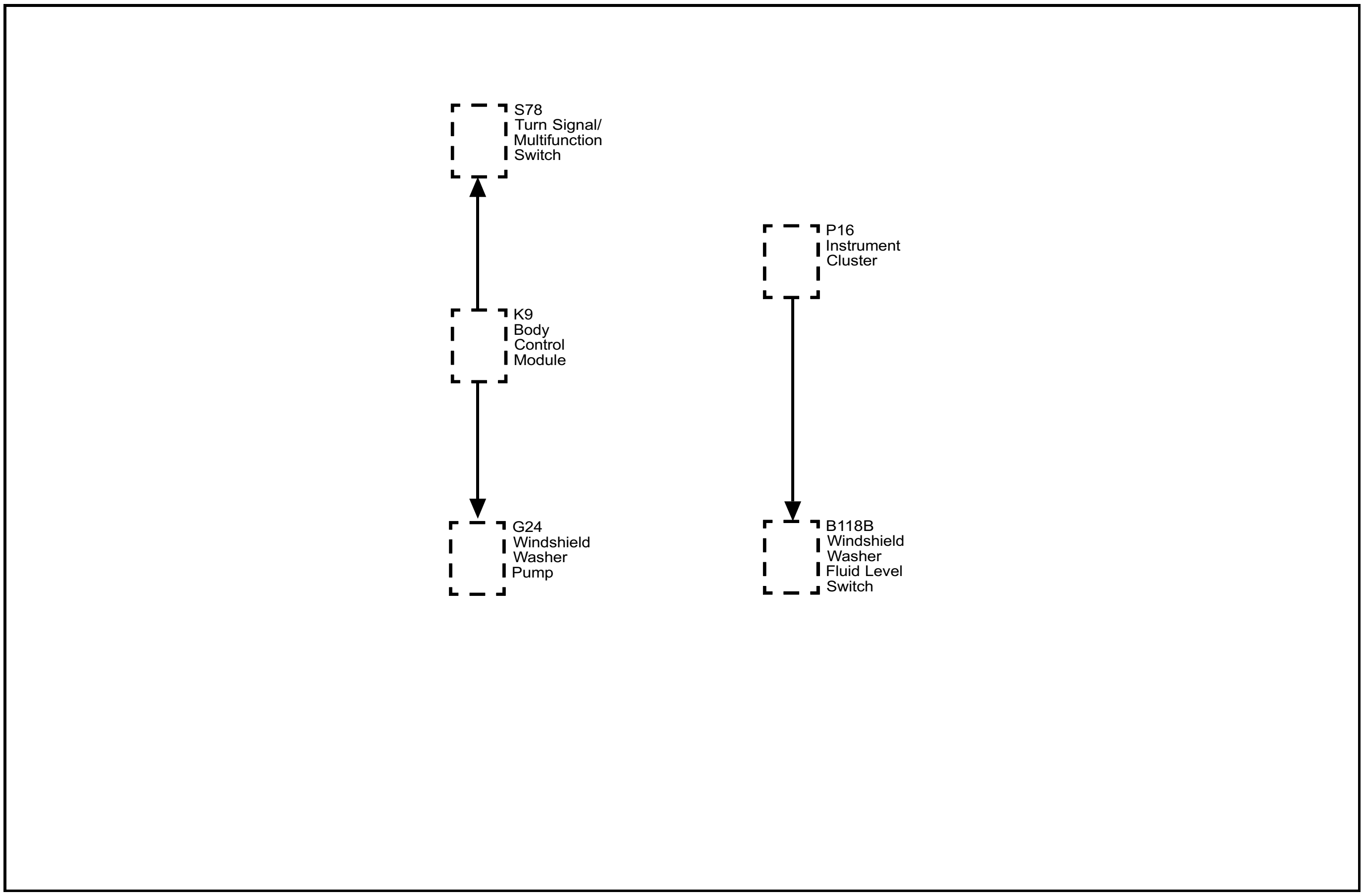
Windshield Washer System

The BCM controls the windshield wash operation and windshield wash activated wiper operation. When the BCM detects the activation of the momentary windshield wash control switch, it activates its washer pump relay drive output which supplies battery power to the coil of the washer pump relay. This energizes the relay, which switches battery power to the pump motor. The BCM will also activate continuous low speed windshield wipes as described above. Upon deactivation of the windshield wash control switch, the wiper control module (BCM) shall deactivate the wash motor and will also park the wiper motor as described above unless the drip wipe feature is enabled. On some vehicles the drip wipe feature will be enabled and cause the system to provide additional wiping of the windshield after the switch has been released and fluid is no longer being applied. The front wash feature may attempt to detect a stuck switch. When enabled, activation of the wash feature shall be limited to 10 seconds.

On vehicles with the Rear Wash feature a single reversing wash motor may be utilized for both the front and rear wash operation. In this system the wash motor is operated in one direction to spray fluid on the front windshield and then operated in the reverse direction to spray fluid on the rear window. The BCM Controls the reversing wash motor through two High Side Drive outputs. One controls the Front Wiper Motor Relay and one controls the Rear Wiper Relay.


S78
Turn Signal/
Multifunction
Switch
P16
Instrument
Cluster
K9
Body
Control
Module
G24
Windshield
Washer
Pump
B118B
Windshield
Washer
Fluid Level
Switch

3443516

BLANK

Section 2

Brakes

Trailer Brake Controls 2-3
  Schematic and Routing Diagrams 2-3
    Trailer Brake Control Schematics 2-4
  Description and Operation 2-5
    Trailer Brake Controls Description and Operation 2-5

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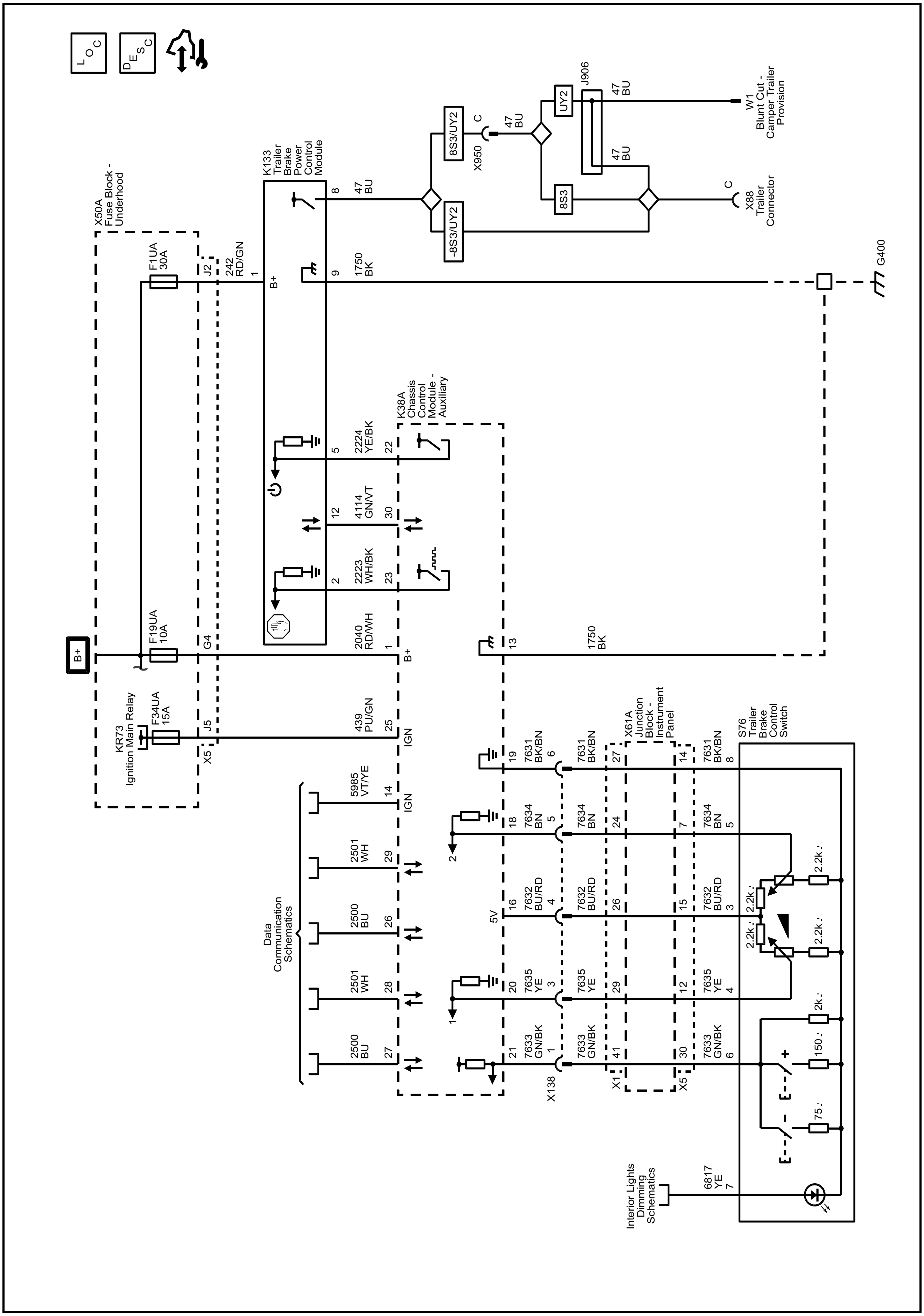
Trailer Brake Controls

Schematic and Routing Diagrams

Trailer Brake Control Schematics (Trailer Brake (JL1))


4677174
L O C
D E S C
B+
X50A Fuse Block - Underhood
F1UA 30A
F19UA 10A
F34UA 15A
KR73 Ignition Main Relay
J2
G4
J5
X5
242 RD/GN
1
B+
K133 Trailer Brake Power Control Module
8
47 BU
9
1750 BK
G400
X950
8S3/UY2
C
47 BU
-8S3/UY2
8S3
UY2
J906
47 BU
47 BU
W1 Blunt Cut - Camper Trailer Provision
C
X88 Trailer Connector
K38A Chassis Control Module - Auxiliary
5
2224 YE/BK
22
12
4114 GN/VT
30
2
2223 WH/BK
23
2040 RD/WH
1
B+
439 PU/GN
25
IGN
5985 VT/YE
14
IGN
2501 WH
29
2500 BU
26
2501 WH
28
2500 BU
27
Data Communication Schematics
13
1750 BK
19
7631 BK/BN
6
18
7634 BN
5
16
7632 BU/RD
4
20
7635 YE
3
21
7633 GN/BK
1
5V
2
1
X138
7631 BK/BN
7634 BN
7632 BU/RD
7635 YE
7633 GN/BK
X61A Junction Block - Instrument Panel
27
24
26
29
41
X1
14
7
15
12
30
X5
S76 Trailer Brake Control Switch
7631 BK/BN
8
7634 BN
5
7632 BU/RD
3
7635 YE
4
7633 GN/BK
6
2.2k Ω
2.2k Ω
2.2k Ω
2.2k Ω
2k Ω
150 Ω
75 Ω
+
-
6817 YE
7
Interior Lights Dimming Schematics

Description and Operation

Trailer Brake Controls Description and Operation

A trailer brake control system is used to control the amount of trailer braking power that is made available to trailers with brakes that require a controlled electrical output signal for actuation.

The power output to the trailer brakes is based on both the amount of braking being applied by the vehicle's brake system and on the type of trailer brakes detected.

The Trailer Brake Control System is compatible with two types of Trailer Brake Systems as listed below:

1. **Electric Brakes** A controlled electrical output signal energizes an electric-magnet/lever arm assembly that directly actuates the brake mechanism. The GDS name for this system is "Electromagnetic Brakes".
2. **Electric Over Hydraulic Brakes** A controlled electrical output signal energizes a remote, trailer mounted hydraulic pump to build brake pressure in a closed hydraulic system on the trailer. The hydraulic fluid pressure actuates the brake mechanism. The GDS name for this system is "Electrohydraulic Brakes".

Trailer Brake Output Versus Trailer Brake Type

- The trailer brake system characterizes the trailer brakes as either Electric Brake or Electric Over Hydraulic Brake automatically. This characterization may be affected by the number, type, and age of the trailer brake magnets, as well as any other devices installed on the trailer brakes (i.e. adapters for Electric Over Hydraulic brake functionality).
- The trailer brake system is fully operational with either characterization.
- Some features of the trailer brake system may be different based on the trailer brake type characterization. An example of this is at zero speed, where pressing the service brake pedal will produce output when the trailer brakes are characterized as Electric Brakes, but not when characterized as Electric Over Hydraulic Brakes.
- Sliding the manual trailer brake apply lever will produce output at zero speed for either characterization.

The user gain allows the driver to adjust the amount of trailer brake output to match the trailer load and road surface. The controller determines the desired trailer brake output and provides a control signal to the K133 Trailer Brake Power Control Module. The K133 Trailer Brake Power Control Module amplifies the signal and provides the output required to activate the Electric or Electric Over Hydraulic trailer brakes.

The trailer brake control can support up to a maximum of four axles with electric trailer brakes (8 brake magnets).

Connecting a trailer that is not compatible with the trailer brake system may result in reduced or complete loss of trailer braking. There may be an increase in stopping distance or trailer instability which could result in personal injury or damage to the vehicle, trailer or other property. An aftermarket controller may be available for use with trailers with surge or air trailer brake systems.

To determine the type of brakes on your trailer and the availability of controllers, check with your trailer manufacturer or dealer. Do not power up an aftermarket controller with the factory brake controller at the same time.

The vehicle is equipped with the following trailer braking components:

- K38A Chassis Control Module-Auxiliary
- K133 Trailer Brake Power Control Module
- S76 Trailer Brake Control Panel
- Manual Trailer Brake Apply
- Trailer Gain Adjustment
- Trailer Brake Driver Information Center Display

Chassis Control Module-Auxiliary

The K38A Chassis Control Module-Auxiliary is a serviceable GMLAN module. The chassis control module sends the low power commanded duty cycle signal to the trailer brake power control module. The trailer brake power control module amplifies the signal and provides an output that is required to drive the trailer brakes.

Trailer Brake Power Control Module

The K133 Trailer Brake Power Control Module (TBPM) is a solid state power switching module that supplies power to the trailer brakes at the input command duty cycle. Diagnostic messages are sent from the TBPM to the CCM on a dedicated LIN bus.

Trailer Brake Control Panel

The S76 Trailer Brake Control Panel contains the trailer gain and manual apply switches. It is located on the instrument panel to the left of the steering column. Refer to the instrument panel overview for more information on the location. The control panel and switches allows you to adjust the amount of output, referred to as trailer gain, available to the Electric or Electric Over Hydraulic brakes. It also allows you to manually apply the trailer brakes. The trailer brake control panel and switches are used along with the trailer brake display page on the driver information center to adjust and display power output to the trailer brakes.

Manual Trailer Brake Apply

The manual trailer brake apply lever is located on the S76 Trailer Brake Control Panel and is used to apply the trailer's Electric or Electric Over Hydraulic brakes independent of the vehicle's brakes. This lever is used in the trailer gain adjustment procedure to properly adjust the power output to the trailer brakes.

Sliding the lever to the left will apply only the trailer brakes. The power output to the trailer is indicated in the trailer brake display page in the Driver Information Center (DIC). If the vehicle's service brakes are applied while using the manual trailer brake apply lever, the trailer output power will be the greater of the two.

The trailer and the vehicle's brake lamps will come on when either the vehicle's braking or manual trailer brakes are applied.

Trailer Gain Adjustment

Trailer gain should be set for a specific trailering condition and must be adjusted any time vehicle loading, trailer loading or road surface conditions change. It is important to re-adjust trailer gain any time the tow vehicle, trailer loading or road surface conditions change or it you notice trailer wheel lock-up at any time while you are towing.

Setting the trailer gain properly is needed for the best trailer stopping performance. A trailer that is over-gained may result in locked trailer brakes. A trailer that is under-gained may result in not enough trailer braking. Both of these conditions may result in poor stopping and stability of the vehicle and trailer.

Trailer Gain Adjustment Procedure

- Adjust trailer gain in 0.5 step increments up to 10 gain setting by using the gain adjustment +/− buttons on the trailer brake control panel switch. Pressing and holding a gain button will cause the trailer gain to continuously increment or decrement. To turn the output to the trailer off, set the gain to zero.
- Drive the tow vehicle and trailer combination on a level surface representative of the towing condition and free of traffic at approximately 32–40 km/h (20–25 mph) and fully apply the manual trailer brake apply lever mechanism located on the trailer brake control panel switch. Adjusting the trailer gain at slower speeds may result in an incorrect gain setting.
- Adjust the trailer gain to just below the threshold of trailer wheel lock-up . Trailer wheel lock-up may not occur if towing a heavily loaded trailer. In this case, adjust the trailer gain to the highest allowable setting for the towing condition.

Hill Start Assist

The hill start assist allows the driver to launch the vehicle without a roll back when the driver is moving their foot from the brake pedal to the accelerator pedal. Refer to the hill start assist system in the anti-lock brake system description and operation document for more information.

Trailer Sway Control

The trailer sway control can detect the vehicle yaw instability, caused by an attached trailer. Refer to the trailer sway control system in the anti-lock brake system description and operation document for more information.

Driver Information Center Indicators and Messages

The following indicators are used to inform the driver of several different conditions:

Trailer Connected

This message will be briefly displayed when a trailer with Electric or Electric Over Hydraulic brakes is first connected to the vehicle. This message will automatically turn off in about ten seconds. The driver can also acknowledge this message before it automatically turns off.

Check Trailer Wiring

This message will be displayed if:

- The system detects that a trailer with Electric or Electric Over Hydraulic brakes is connected to the vehicle and then the trailer harness becomes disconnected from the vehicle.
- The trailer connection is recognized initially and then a disconnect occurs while the vehicle is stationary. This message will automatically turn off in about thirty seconds. This message will also turn off if the driver acknowledges this message off or if the trailer harness is reconnected.
- A disconnect of the trailer wiring harness occurs while the vehicle is moving. The Check Trailer Wiring message will continue until the ignition is turned off. The message will also turn off if the driver acknowledges this message off or it the trailer harness is re-connected or repairs are completed.
- There is an electrical fault in the wiring to the electric trailer brakes. The Check Trailer Wiring message will continue as long as there is an electrical fault in the trailer wiring. This message will also turn off if the driver acknowledges this message off.
- A poor connection at the 7–way connector may cause the Check Trailer Wiring message. Some aftermarket 7–way trailer side connector adapters or plugs may cause deformation or excessive wear to the vehicle's trailer terminals. It is recommended that you use an OEM or Pollak heavy duty 7–way trailer side connector adapter.

Service Trailer Brake System

This message will be displayed when there is a problem with the trailer brake control system. The trailer brake system may not be fully functional, or may not be functioning at all. The trailer brake system is designed to provide trailer braking, if possible, even when faults prevent it from being fully functional. This reduced functionality includes:

1. Providing trailer braking when the master cylinder pressure or brake pedal switch are faulted.
2. Providing trailer braking when hill start assist and trailer sway control communication is faulted.
3. Providing trailer braking when certain manual trailer brake apply lever faults are present.

These conditions should be repaired to allow the trailer brake system to be fully functional.

Trailer Gain and Output Display

This display menu can be accessed by scrolling through the DIC menu, or any time the trailer gain +/− button is depressed, or the manual trailer brake apply lever is actuated. The trailer output is displayed from 0 to full output and indicates the output power provided to the trailer brakes, relative to the gain setting.

After the electrical connection is made to a trailer equipped with electric brakes or electric over hydraulic brakes, the TRAILER CONNECTED message will be displayed momentarily on the DIC. The Trailer Brake Display Page can be selected on the DIC showing TRAILER GAIN and OUTPUT, after all vehicle related service messages are acknowledged by the driver.

Depending on which instrument panel cluster is in the vehicle, the DIC may display dashed lines, a greyed out display, or it may be blank signifying a disconnected trailer or a trailer brake fault condition.

BLANK

Section 3

Driver Information and Entertainment

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    Rear Vision Camera Description and Operation (with IOB/IOR/IO3) 3-51
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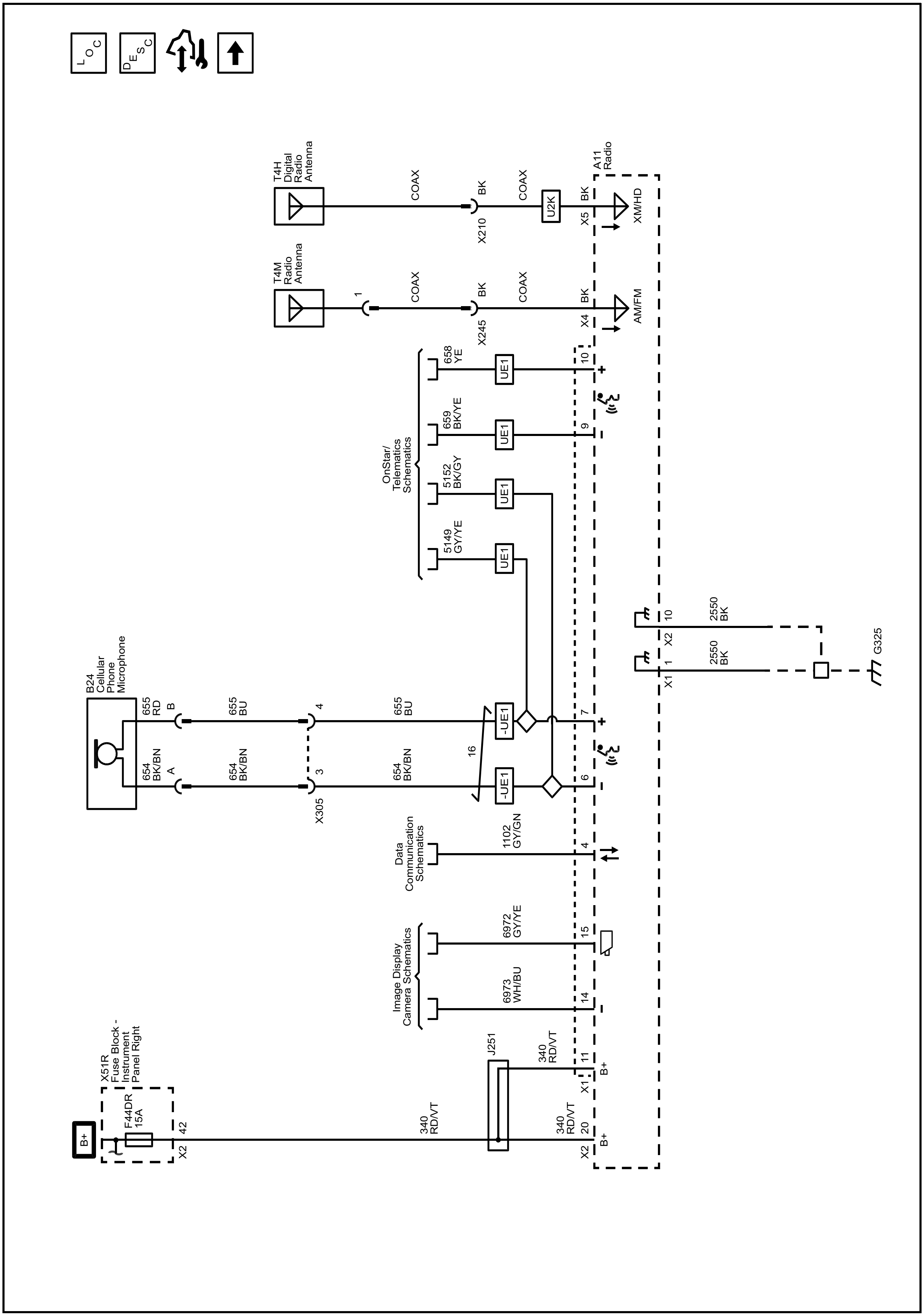
BLANK

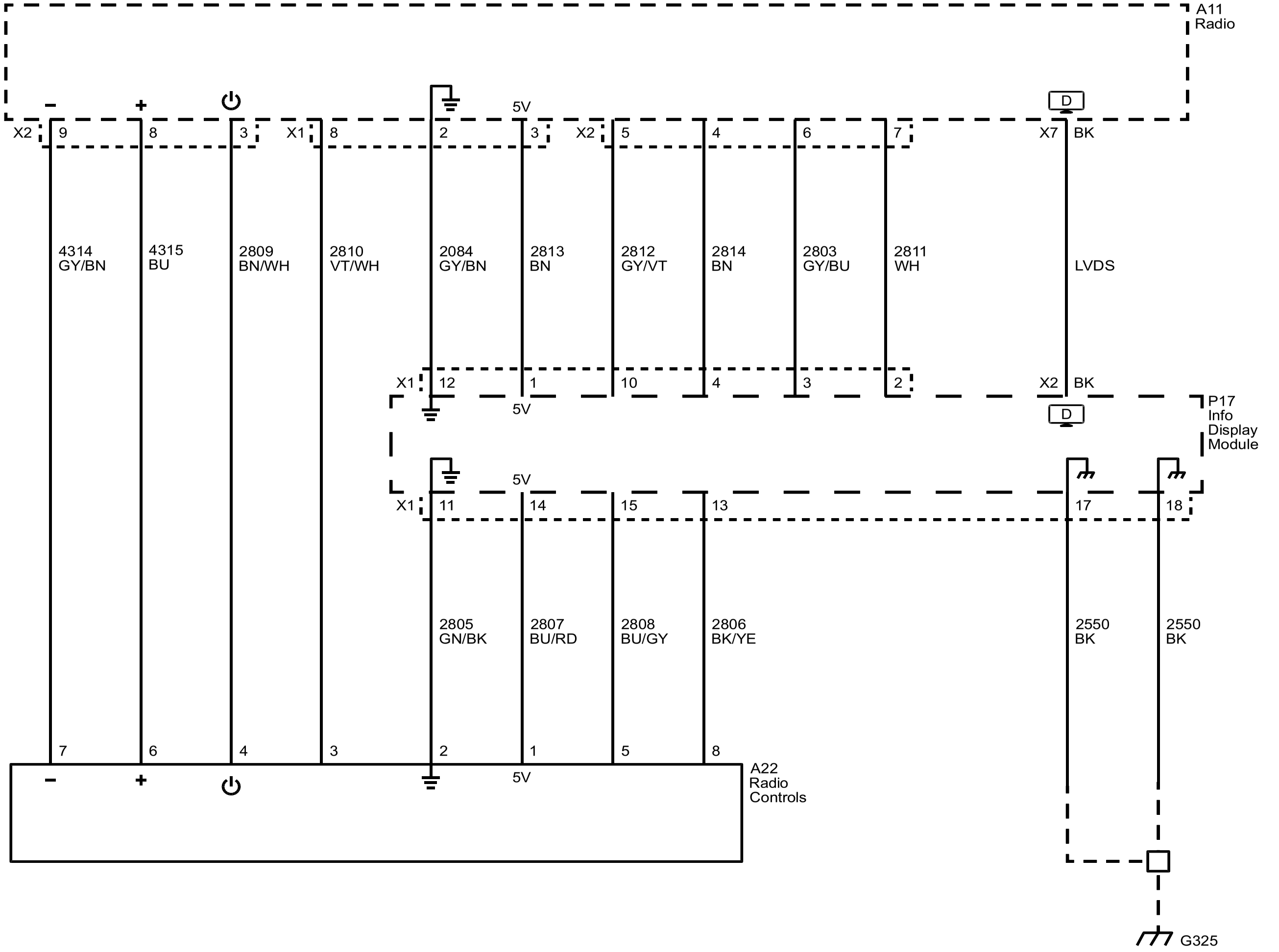
Cellular, Entertainment, and Navigation

Schematic and Routing Diagrams

Radio/Navigation System Schematics (IOB) (Radio Power, Ground, Serial Data and Antenna)

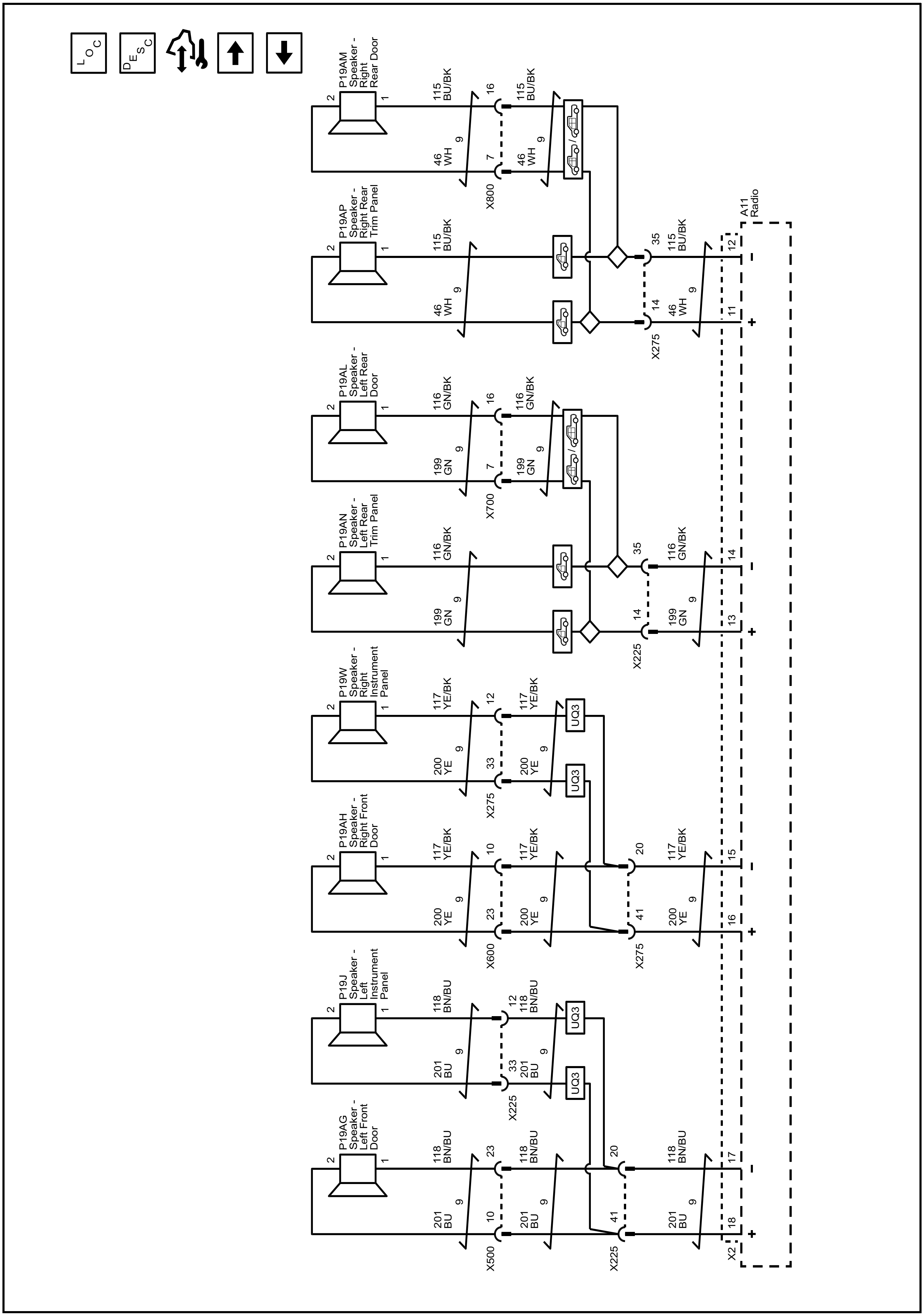

4677178
LOC
DESC
B+
X51R Fuse Block - Instrument Panel Right
F44DR 15A
X2 42
340 RD/VT
J251
340 RD/VT
X2 20 B+
340 RD/VT
X1 11 B+
Image Display Camera Schematics
6973 WH/BU
14
6972 GY/YE
15
Data Communication Schematics
1102 GY/GN
4
B24 Cellular Phone Microphone
655 RD B
654 BK/BN A
655 BU
654 BK/BN
X305
4
3
655 BU
654 BK/BN
16
-UE1
-UE1
7 +
6 -
OnStar/ Telematics Schematics
5149 GY/YE
5152 BK/GY
659 BK/YE
658 YE
UE1
UE1
UE1
UE1
9 -
10 +
T4M Radio Antenna
1
COAX
BK
X245
COAX
BK
X4
AM/FM
T4H Digital Radio Antenna
COAX
BK
X210
COAX
U2K
BK
X5
XM/HD
A11 Radio
X1 1
X2 10
2550 BK
2550 BK
G325

Radio/Navigation System Schematics (IOB) (Media Disc Player Power, Ground and Serial Data (TG5))

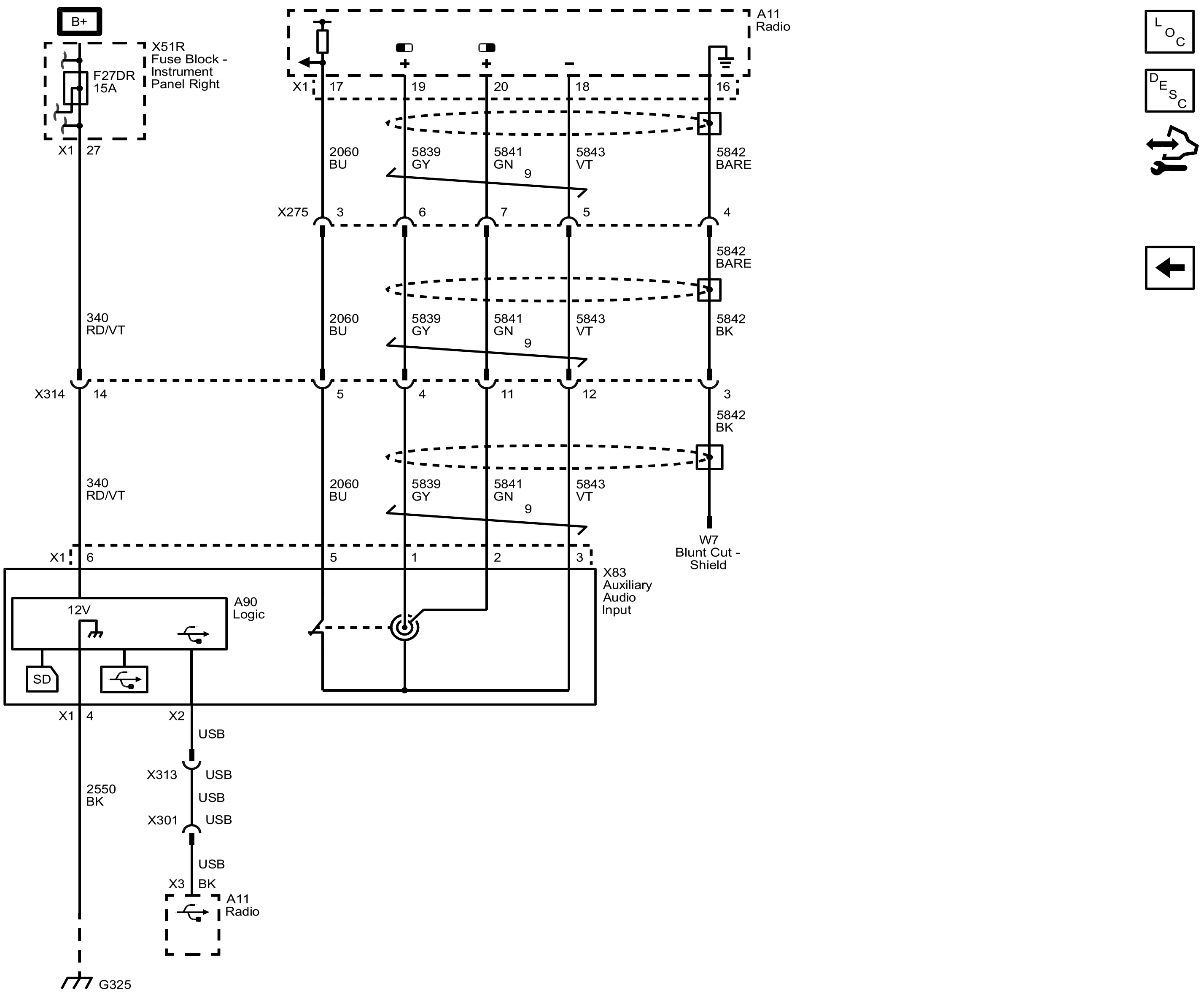

A11
Radio
–
+
5V
D
X2
9
8
3
X1
8
2
3
X2
5
4
6
7
X7
BK
4314
GY/BN
4315
BU
2809
BN/WH
2810
VT/WH
2084
GY/BN
2813
BN
2812
GY/VT
2814
BN
2803
GY/BU
2811
WH
LVDS
X1
12
1
10
4
3
2
X2
BK
5V
P17
Info
Display
Module
D
5V
X1
11
14
15
13
17
18
2805
GN/BK
2807
BU/RD
2808
BU/GY
2806
BK/YE
2550
BK
2550
BK
7
6
4
3
2
1
5
8
A22
Radio
Controls
–
+
5V
G325

4677181

Radio/Navigation System Schematics (IOB) (Speakers (UQ3 or UQ5))

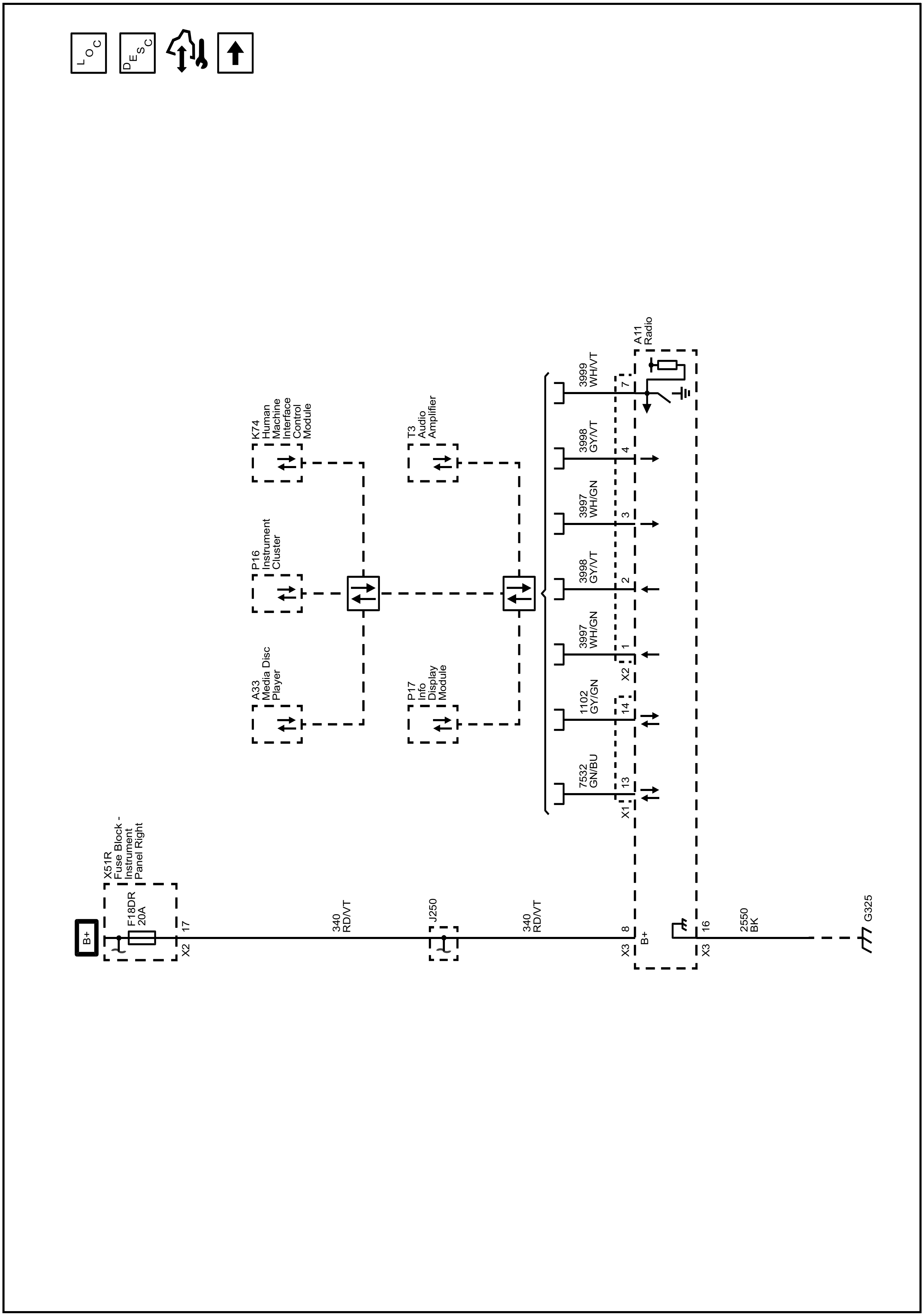

4677183
L O C
D E S C
P19AG Speaker - Left Front Door
P19J Speaker - Left Instrument Panel
P19AH Speaker - Right Front Door
P19W Speaker - Right Instrument Panel
P19AN Speaker - Left Rear Trim Panel
P19AL Speaker - Left Rear Door
P19AP Speaker - Right Rear Trim Panel
P19AM Speaker - Right Rear Door
A11 Radio
X500
X225
X600
X275
X700
X800
X2
201 BU
118 BN/BU
200 YE
117 YE/BK
199 GN
116 GN/BK
46 WH
115 BU/BK
UQ3
1
2
9
7
10
12
14
16
20
23
33
35
41
11
13
15
17
18
+
-

Radio/Navigation System Schematics (IOB) (Auxiliary Inputs)

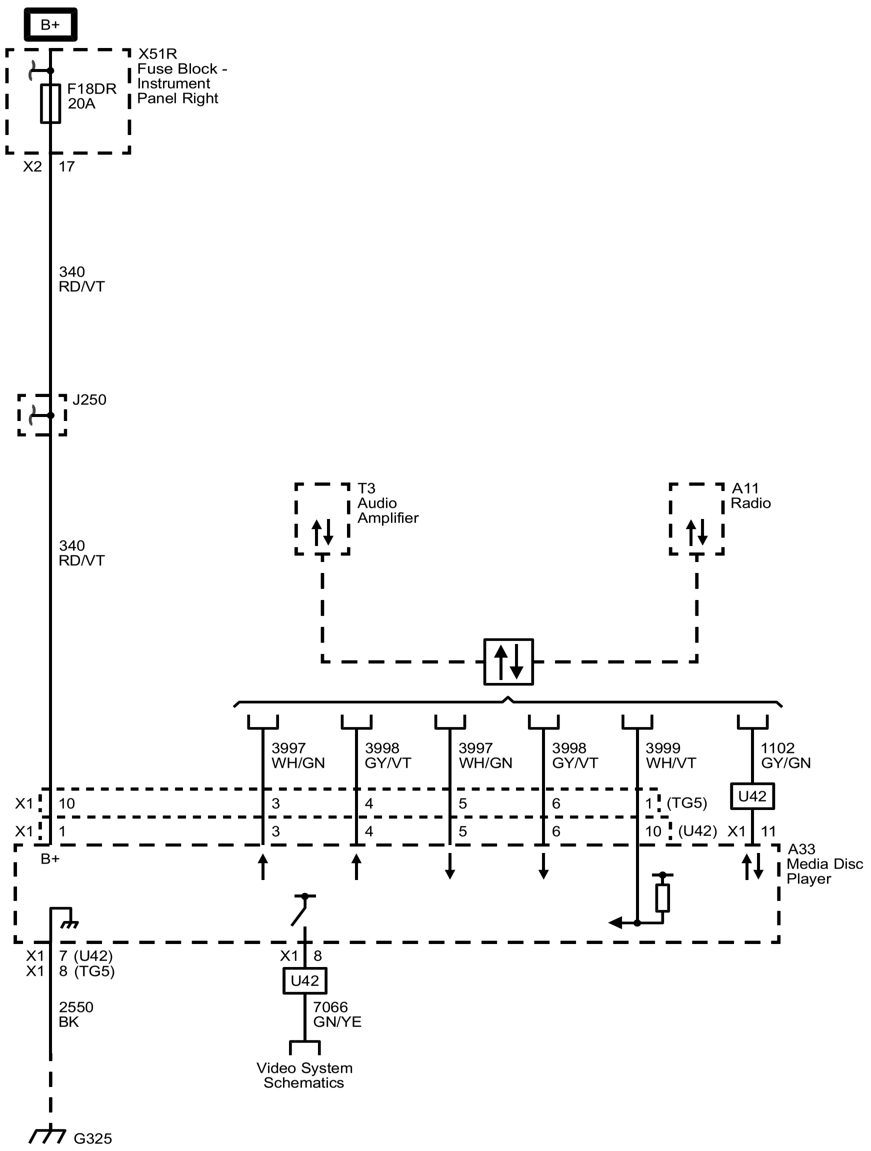

B+
X51R
Fuse Block -
Instrument
Panel Right
F27DR
15A
X1 27
340
RD/VT
X314 14
340
RD/VT
X1 6
A11
Radio
X1 17 19 20 18 16
2060
BU
5839
GY
5841
GN
9
5843
VT
5842
BARE
X275 3 6 7 5 4
5842
BARE
2060
BU
5839
GY
5841
GN
9
5843
VT
5842
BK
5 4 11 12 3
5842
BK
2060
BU
5839
GY
5841
GN
9
5843
VT
W7
Blunt Cut -
Shield
5 1 2 3
X83
Auxiliary
Audio
Input
A90
Logic
12V
SD
X1 4
X2
USB
X313 USB
USB
X301 USB
USB
X3 BK
A11
Radio
2550
BK
G325

4677185

Radio/Navigation System Schematics (IO5/IO6) (Radio Power, Ground and Serial Data)

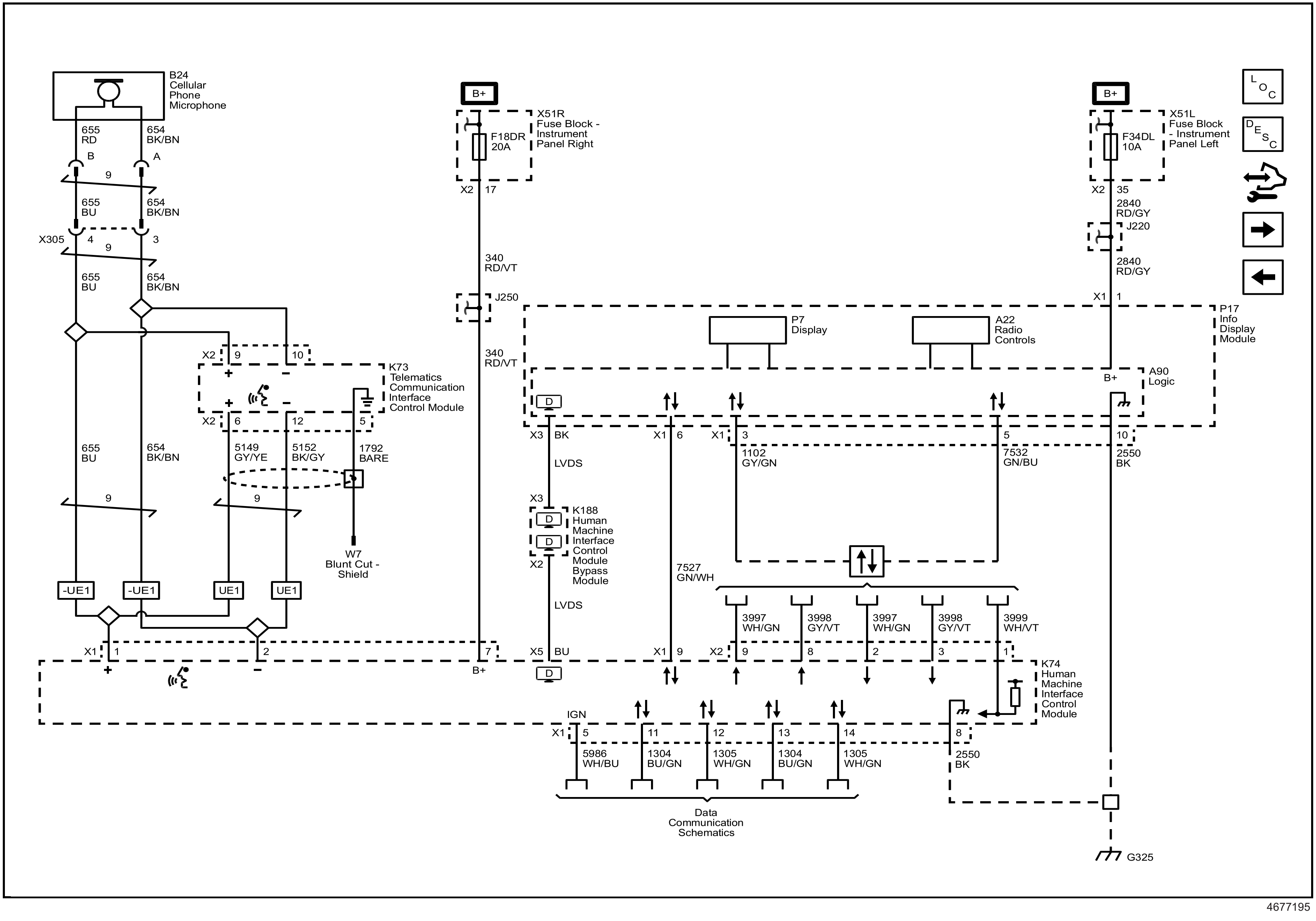

4677187
LOC
DESC
B+
X51R Fuse Block - Instrument Panel Right
F18DR 20A
X2 17
340 RD/VT
J250
340 RD/VT
X3 8 B+
X3 16
2550 BK
G325
A33 Media Disc Player
P16 Instrument Cluster
K74 Human Machine Interface Control Module
P17 Info Display Module
T3 Audio Amplifier
7532 GN/BU
1102 GY/GN
3997 WH/GN
3998 GY/VT
3997 WH/GN
3998 GY/VT
3999 WH/VT
X1 13
14
X2 1
2
3
4
7
A11 Radio

Radio/Navigation System Schematics (IO5/IO6) (Media Disc Player Power, Ground and Serial Data (TG5 or U42))

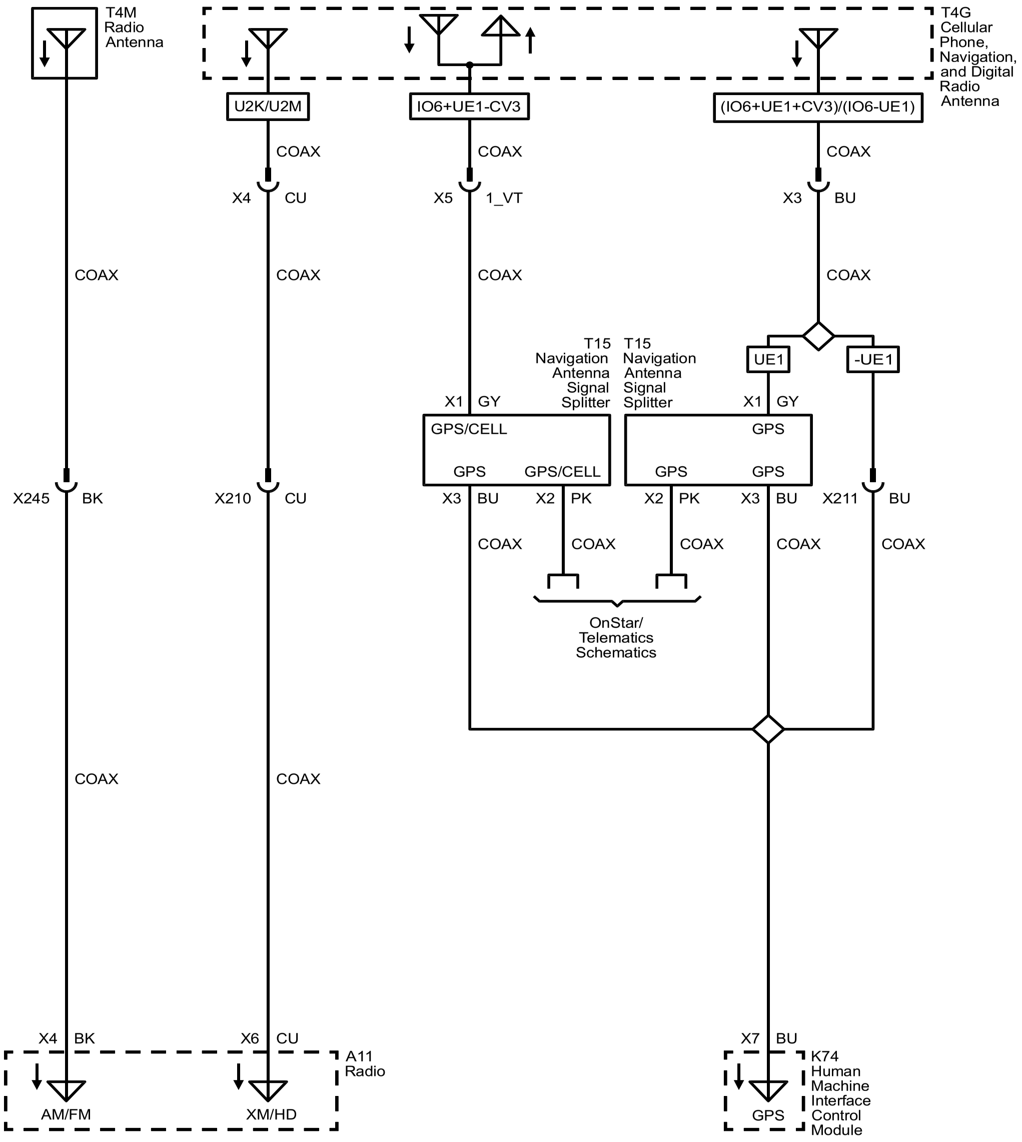

B+
X51R
Fuse Block -
Instrument
Panel Right
F18DR
20A
X2 17
340
RD/VT
J250
340
RD/VT
T3
Audio
Amplifier
A11
Radio
3997
WH/GN
3998
GY/VT
3997
WH/GN
3998
GY/VT
3999
WH/VT
1102
GY/GN
U42
X1 10
X1 1
3 3
4 4
5 5
6 6
1 (TG5)
10 (U42)
X1 11
B+
A33
Media Disc
Player
X1 7 (U42)
X1 8 (TG5)
2550
BK
G325
X1 8
U42
7066
GN/YE
Video System
Schematics

4677190

Radio/Navigation System Schematics (IO5/IO6) (Human Machine Interface, Display, Cellular Microphone, Power, Ground and Serial Data)

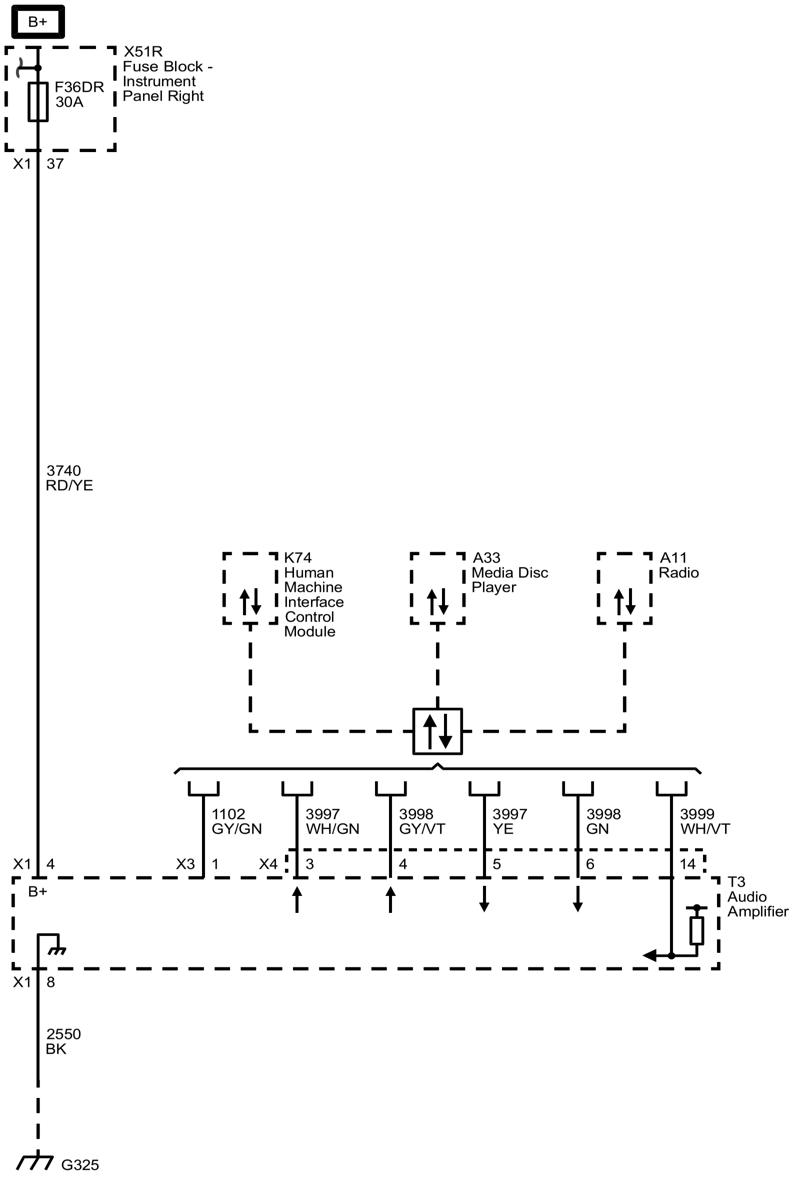

B24 Cellular Phone Microphone
655 RD
654 BK/BN
B
A
9
655 BU
654 BK/BN
X305
4
3
655 BU
654 BK/BN
X2
9
10
K73 Telematics Communication Interface Control Module
6
12
5
5149 GY/YE
5152 BK/GY
1792 BARE
W7 Blunt Cut - Shield
-UE1
UE1
X1
1
2
B+
X51R Fuse Block - Instrument Panel Right
F18DR 20A
17
340 RD/VT
J250
7
X3
BK
LVDS
K188 Human Machine Interface Control Module Bypass Module
X5
BU
D
P7 Display
A22 Radio Controls
P17 Info Display Module
A90 Logic
X51L Fuse Block - Instrument Panel Left
F34DL 10A
35
2840 RD/GY
J220
1102 GY/GN
7532 GN/BU
10
2550 BK
7527 GN/WH
3997 WH/GN
3998 GY/VT
3999 WH/VT
8
K74 Human Machine Interface Control Module
IGN
11
13
14
5986 WH/BU
1304 BU/GN
1305 WH/GN
Data Communication Schematics
G325
L O C
D E S C
4677195

Radio/Navigation System Schematics (IO5/IO6) (Antennas)


T4M
Radio
Antenna
T4G
Cellular
Phone,
Navigation,
and Digital
Radio
Antenna
U2K/U2M
IO6+UE1-CV3
(IO6+UE1+CV3)/(IO6-UE1)
COAX
X4 CU
X5 1_VT
X3 BU
UE1
-UE1
T15
Navigation
Antenna
Signal
Splitter
X1 GY
GPS/CELL
GPS
GPS/CELL
X3 BU
X2 PK
X211 BU
X245 BK
X210 CU
OnStar/
Telematics
Schematics
X4 BK
X6 CU
A11
Radio
AM/FM
XM/HD
X7 BU
K74
Human
Machine
Interface
Control
Module
GPS

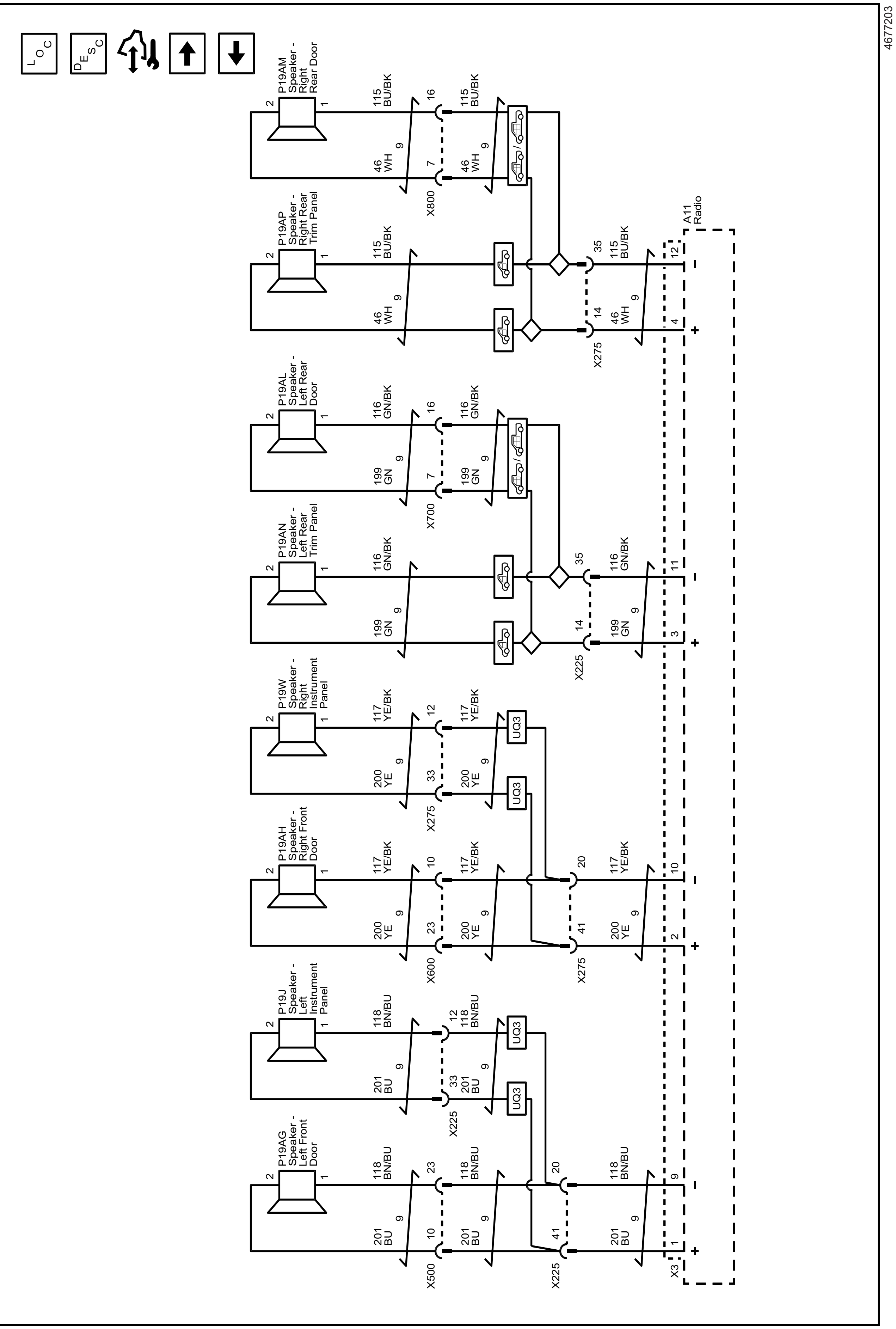
4677197

Radio/Navigation System Schematics (IO5/IO6) (Audio Amplifier Power, Ground and Serial Data (UQA or UQG))

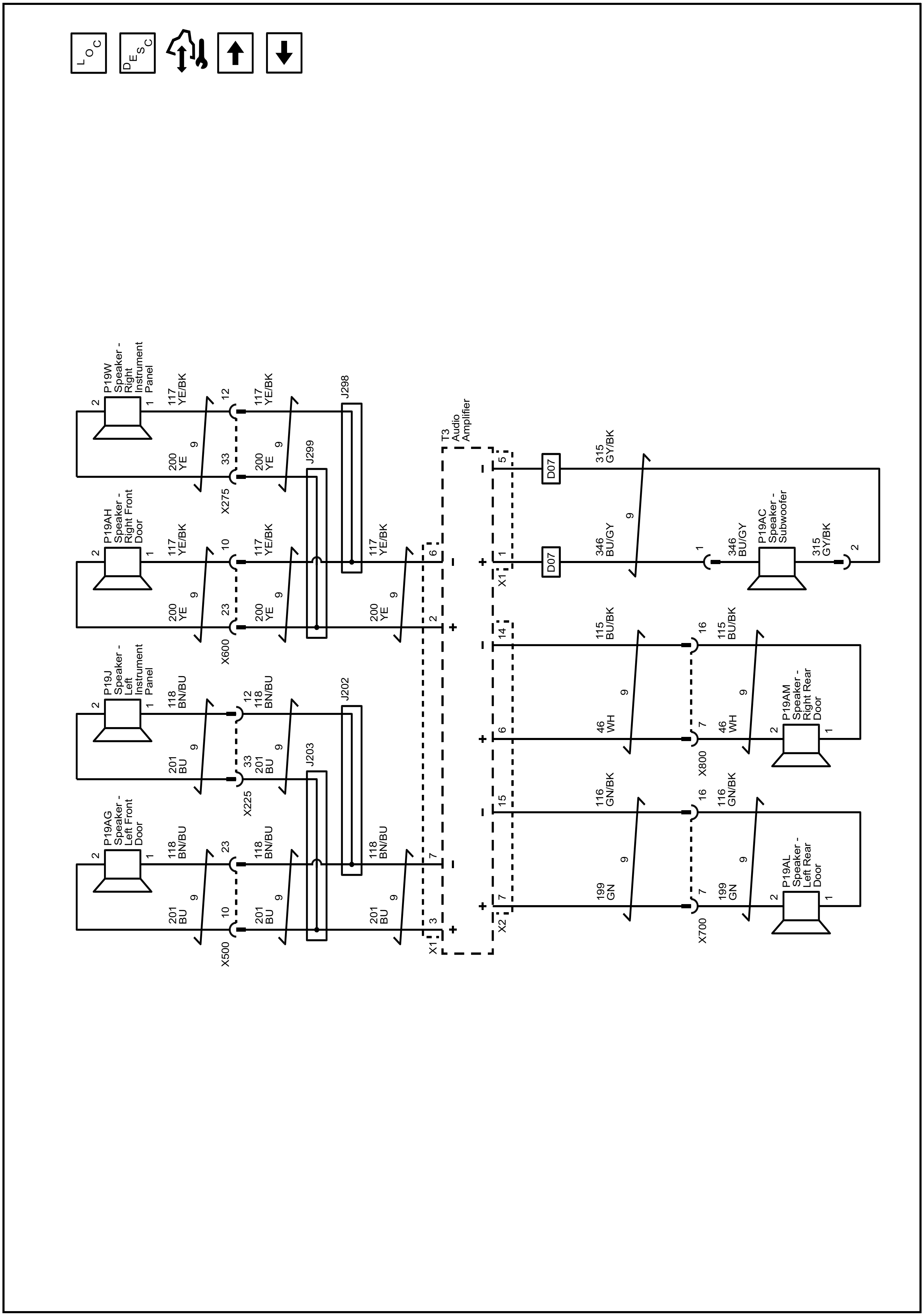

B+
X51R
Fuse Block - Instrument Panel Right
F36DR
30A
X1 37
3740
RD/YE
K74
Human Machine Interface Control Module
A33
Media Disc Player
A11
Radio
1102
GY/GN
3997
WH/GN
3998
GY/VT
3997
YE
3998
GN
3999
WH/VT
X1 4
X3 1
X4 3
4
5
6
14
B+
T3
Audio Amplifier
X1 8
2550
BK
G325

4677200

Radio/Navigation System Schematics (IO5/IO6) (Speakers (UQ3 or UQ5))

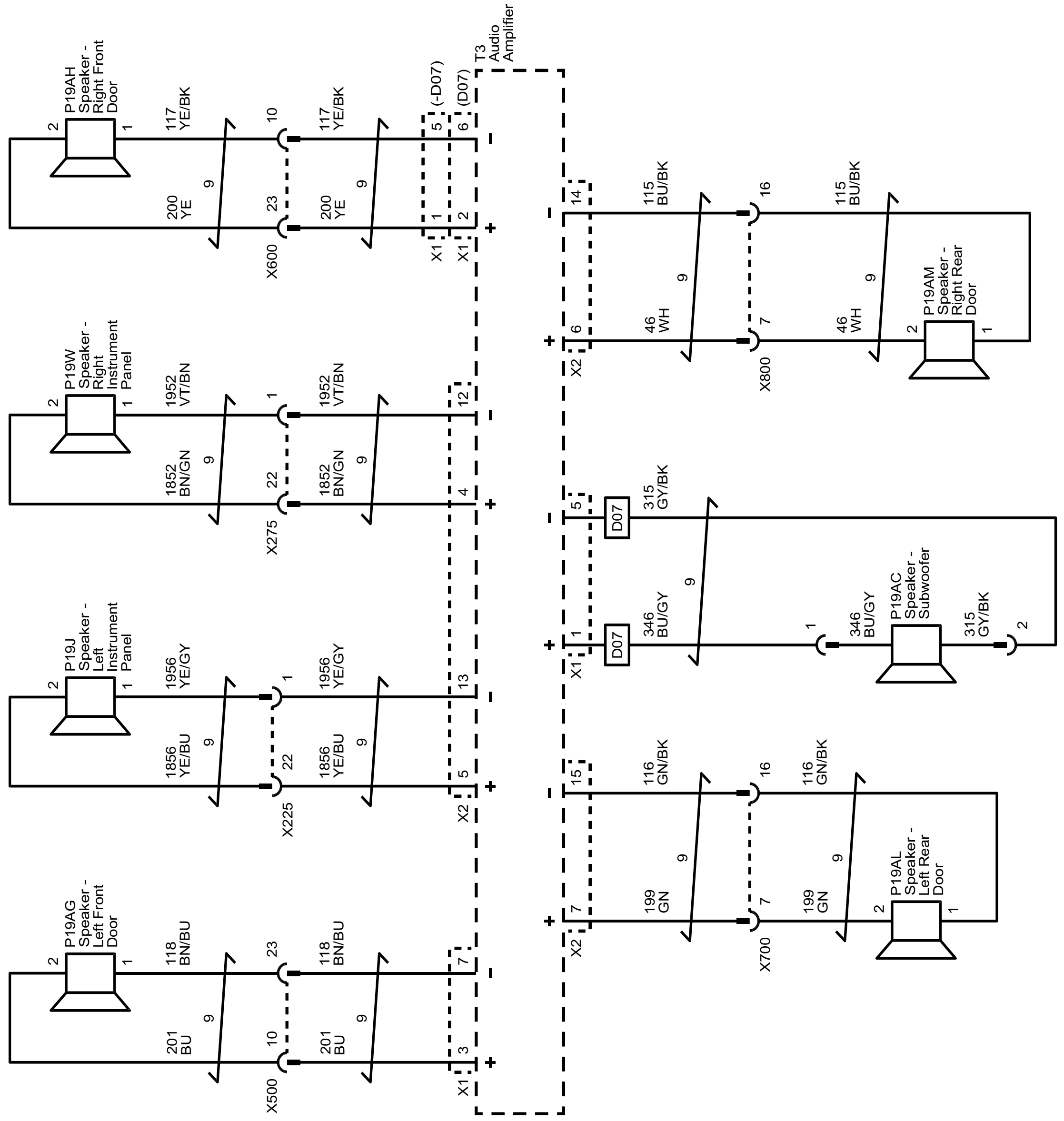

L O C
D E S C
P19AG Speaker - Left Front Door
P19J Speaker - Left Instrument Panel
P19AH Speaker - Right Front Door
P19W Speaker - Right Instrument Panel
P19AN Speaker - Left Rear Trim Panel
P19AL Speaker - Left Rear Door
P19AP Speaker - Right Rear Trim Panel
P19AM Speaker - Right Rear Door
A11 Radio
201 BU
118 BN/BU
200 YE
117 YE/BK
199 GN
116 GN/BK
46 WH
115 BU/BK
9
X500
X225
X600
X275
X700
X800
X3
UQ3
10
23
33
12
41
20
14
35
7
16
1
2
3
4
9
10
11
12
+
-
4677203

Radio/Navigation System Schematics (IO5/IO6) (Speakers (UQG))

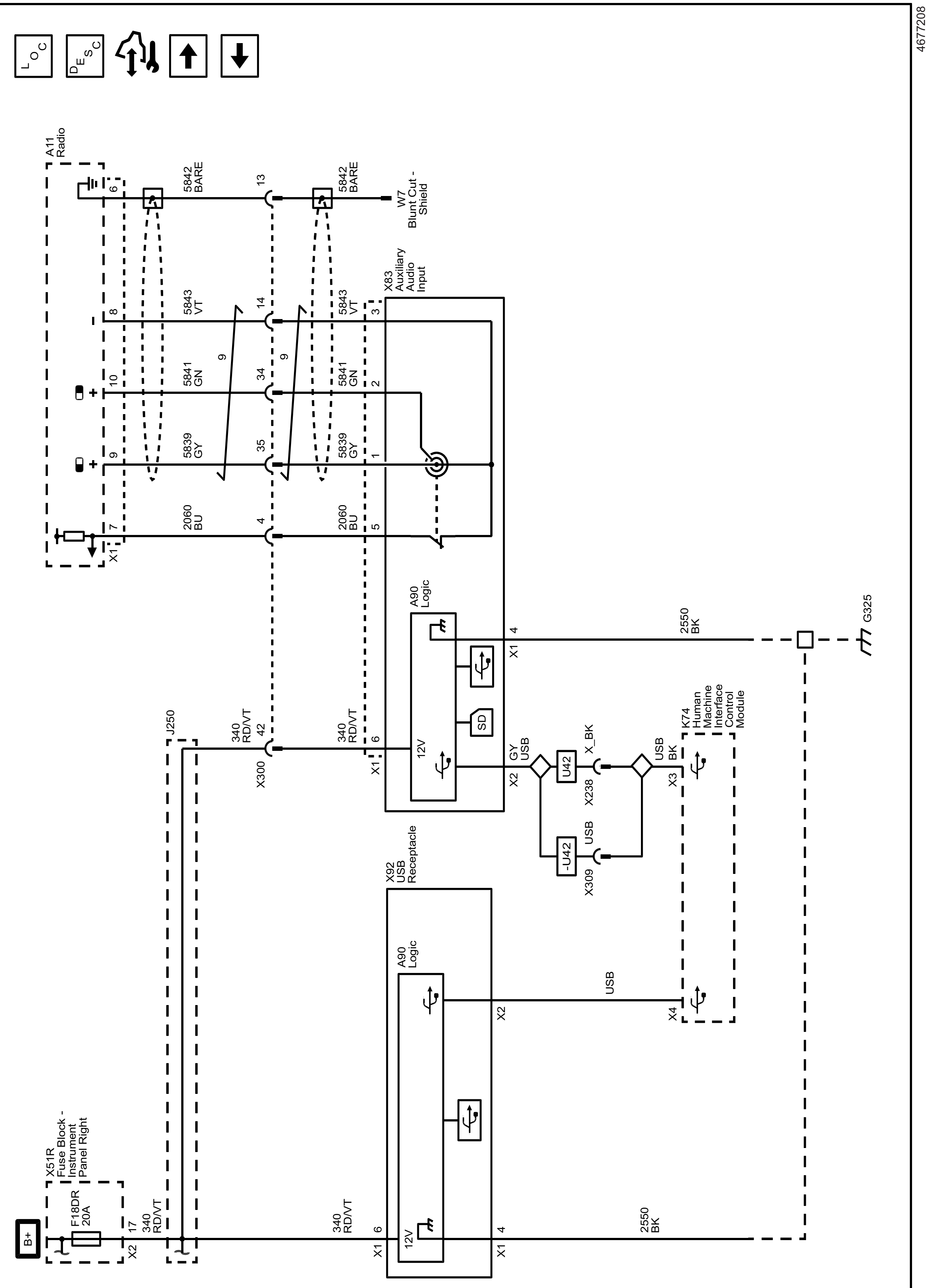

4677205
LOC
DESC
P19W Speaker - Right Instrument Panel
P19AH Speaker - Right Front Door
P19J Speaker - Left Instrument Panel
P19AG Speaker - Left Front Door
117 YE/BK
200 YE
118 BN/BU
201 BU
9
X275
X600
X225
X500
12
33
10
23
J298
J299
J202
J203
T3 Audio Amplifier
X1
X2
D07
315 GY/BK
346 BU/GY
P19AC Speaker - Subwoofer
115 BU/BK
46 WH
116 GN/BK
199 GN
X800
X700
P19AM Speaker - Right Rear Door
P19AL Speaker - Left Rear Door
1
2
3
5
6
7
14
15
16
+
-

Radio/Navigation System Schematics (IO5/IO6) (Speakers (UQA))

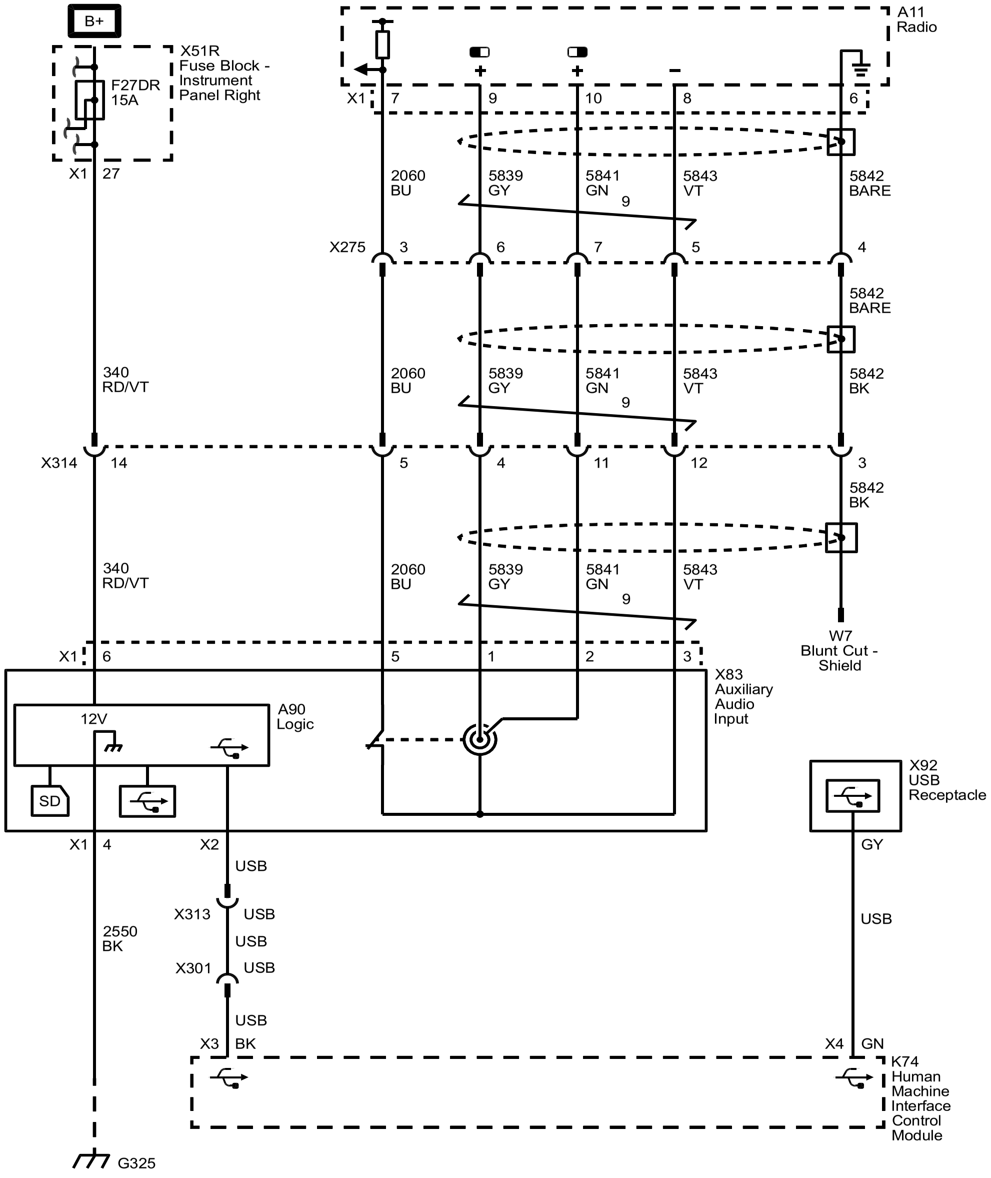
4677206


P19AH Speaker - Right Front Door
P19W Speaker - Right Instrument Panel
P19J Speaker - Left Instrument Panel
P19AG Speaker - Left Front Door
T3 Audio Amplifier
(-D07)
(D07)
117 YE/BK
200 YE
1952 VT/BN
1852 BN/GN
1956 YE/GY
1856 YE/BU
118 BN/BU
201 BU
X600
X275
X225
X500
X1
X2
115 BU/BK
46 WH
315 GY/BK
346 BU/GY
116 GN/BK
199 GN
D07
X800
X700
P19AM Speaker - Right Rear Door
P19AC Speaker - Subwoofer
P19AL Speaker - Left Rear Door
9

Radio/Navigation System Schematics (IO5/IO6) (Auxiliary Inputs (D07))

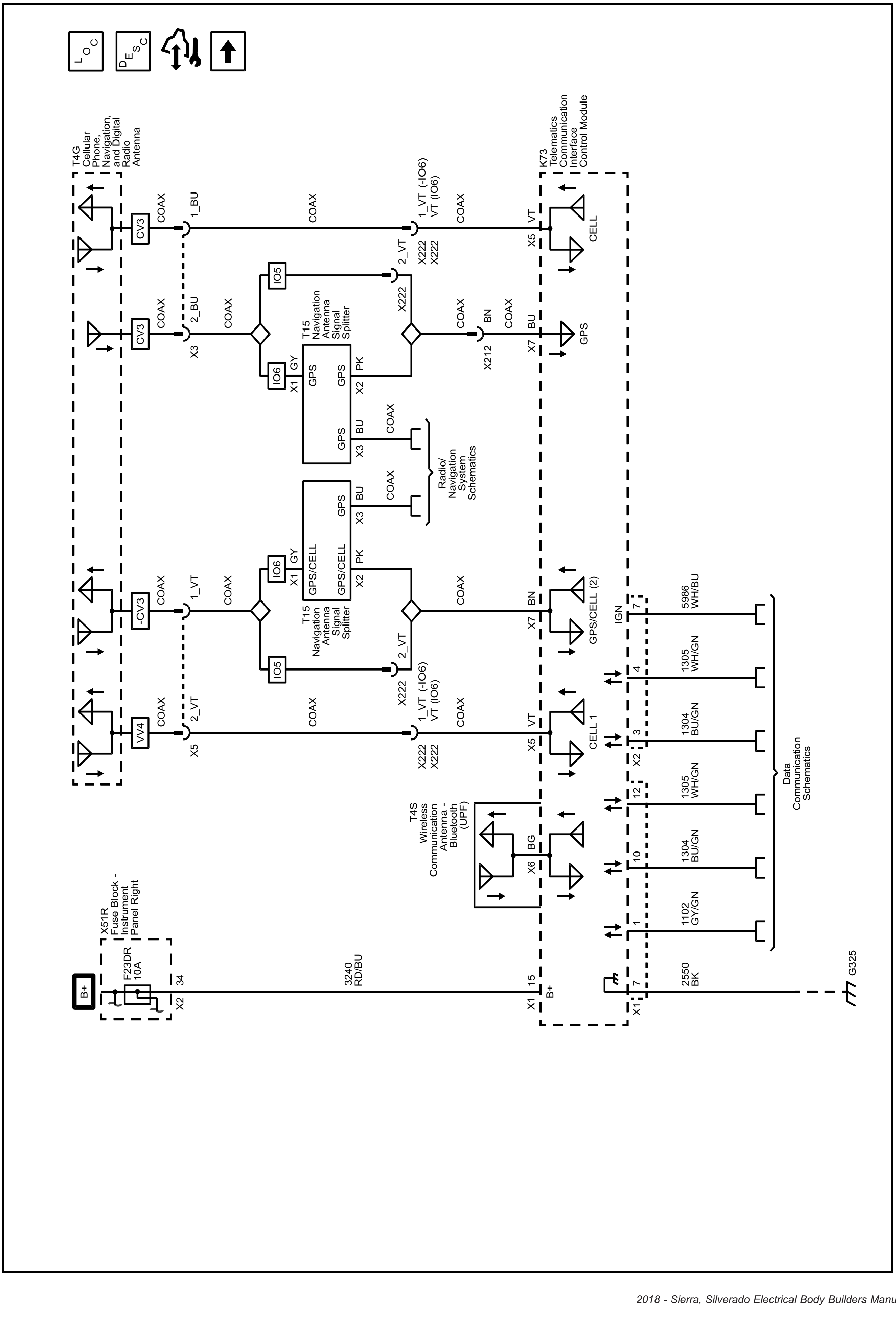

LOC
DESC
4677208
A11
Radio
X1
6
8
10
9
7
5842
BARE
5843
VT
5841
GN
5839
GY
2060
BU
9
13
14
34
35
4
9
W7
Blunt Cut -
Shield
X83
Auxiliary
Audio
Input
3
2
1
5
J250
340
RD/VT
42
X300
6
X1
A90
Logic
12V
SD
X1
4
2550
BK
G325
GY
USB
X2
U42
X_BK
X238
-U42
USB
X309
USB
BK
X3
K74
Human
Machine
Interface
Control
Module
X4
X92
USB
Receptacle
A90
Logic
12V
X2
X1
6
X1
4
USB
2550
BK
B+
X51R
Fuse Block -
Instrument
Panel Right
F18DR
20A
X2
17
340
RD/VT

Radio/Navigation System Schematics (IO5/IO6) (Auxiliary Inputs (without D07))

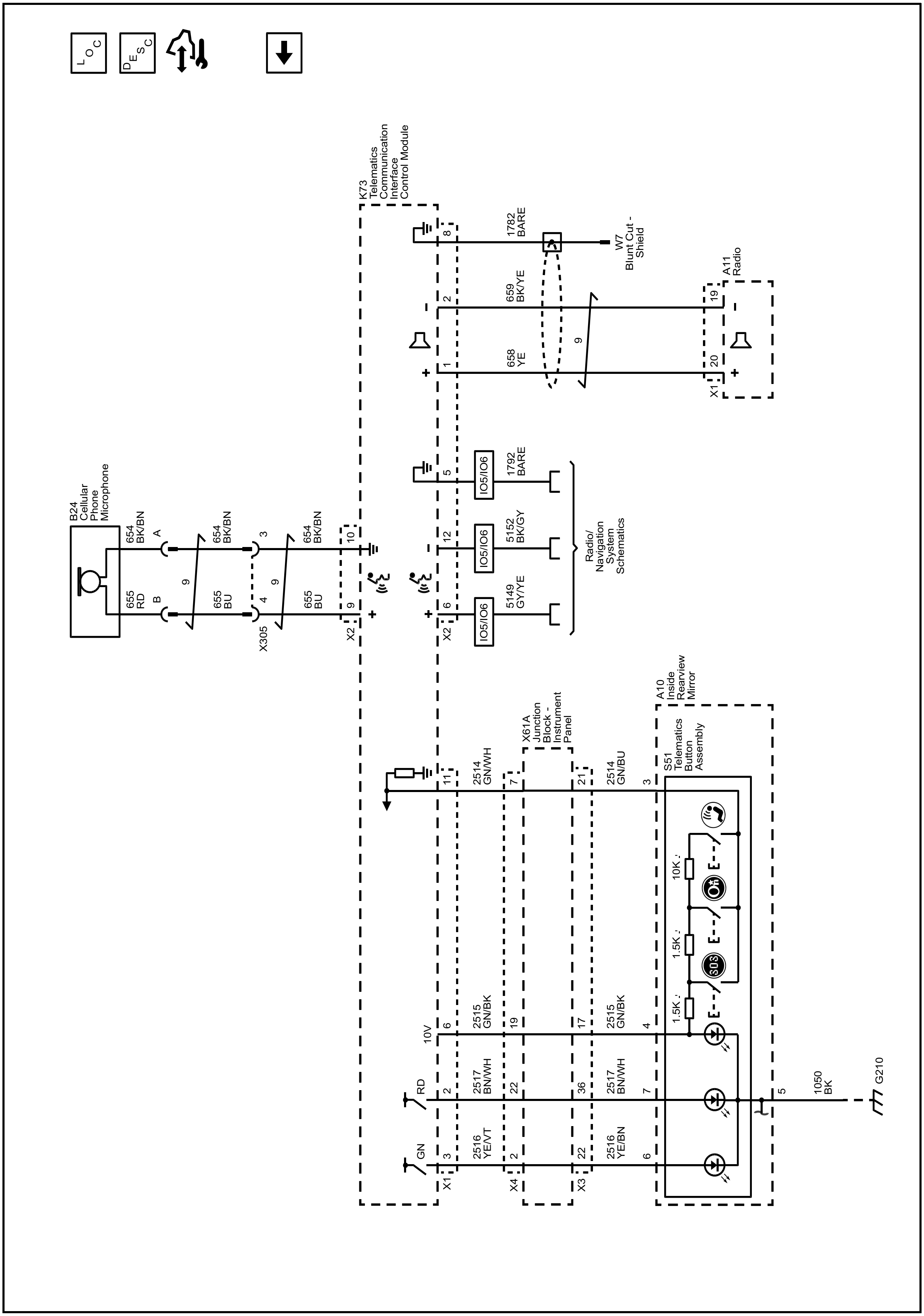

B+
X51R
Fuse Block -
Instrument
Panel Right
F27DR
15A
X1 27
A11
Radio
X1 7 9 10 8 6
2060
BU
5839
GY
5841
GN
9
5843
VT
5842
BARE
X275 3 6 7 5 4
5842
BARE
340
RD/VT
2060
BU
5839
GY
5841
GN
9
5843
VT
5842
BK
X314 14 5 4 11 12 3
5842
BK
340
RD/VT
2060
BU
5839
GY
5841
GN
9
5843
VT
W7
Blunt Cut -
Shield
X1 6 5 1 2 3
X83
Auxiliary
Audio
Input
A90
Logic
12V
SD
X92
USB
Receptacle
X1 4
X2
USB
GY
X313
USB
USB
USB
2550
BK
X301
USB
USB
X3
BK
X4
GN
K74
Human
Machine
Interface
Control
Module
G325

4677211

OnStar/Telematics Schematics (Power, Ground, Serial Data and Antennas (UE1))


4677213
LOC
DESC
T4G Cellular Phone, Navigation, and Digital Radio Antenna
CV3
COAX
1_BU
2_BU
X3
-CV3
1_VT
VV4
2_VT
X5
T15 Navigation Antenna Signal Splitter
IO5
IO6
GY
PK
BU
X1
X2
X3
GPS
GPS/CELL
Radio/ Navigation System Schematics
X222
1_VT (-IO6)
VT (IO6)
BN
X212
K73 Telematics Communication Interface Control Module
VT
X5
CELL
X7
GPS
GPS/CELL (2)
CELL 1
T4S Wireless Communication Antenna - Bluetooth (UPF)
BG
X6
IGN
7
4
3
12
10
1
5986 WH/BU
1305 WH/GN
1304 BU/GN
1102 GY/GN
Data Communication Schematics
X51R Fuse Block - Instrument Panel Right
B+
F23DR 10A
34
3240 RD/BU
15
X1
2550 BK
G325

OnStar/Telematics Schematics (Controls and Audio Signals (UE1))


LOC
DESC
K73 Telematics Communication Interface Control Module
B24 Cellular Phone Microphone
655 RD
654 BK/BN
B
A
9
655 BU
654 BK/BN
X305
4
3
655 BU
654 BK/BN
X2
9
10
+
X2
6
12
5
IO5/IO6
5149 GY/YE
5152 BK/GY
1792 BARE
Radio/ Navigation System Schematics
+
-
1
2
8
658 YE
659 BK/YE
1782 BARE
W7 Blunt Cut - Shield
X1
20
19
A11 Radio
X1
GN
RD
10V
3
2
6
11
2516 YE/VT
2517 BN/WH
2515 GN/BK
2514 GN/WH
X4
2
22
19
7
X61A Junction Block - Instrument Panel
X3
22
36
17
21
2516 YE/BN
2517 BN/WH
2515 GN/BK
2514 GN/BU
6
7
4
3
A10 Inside Rearview Mirror
S51 Telematics Button Assembly
1.5K
1.5K
10K
SOS
5
1050 BK
G210

4677216

Description and Operation

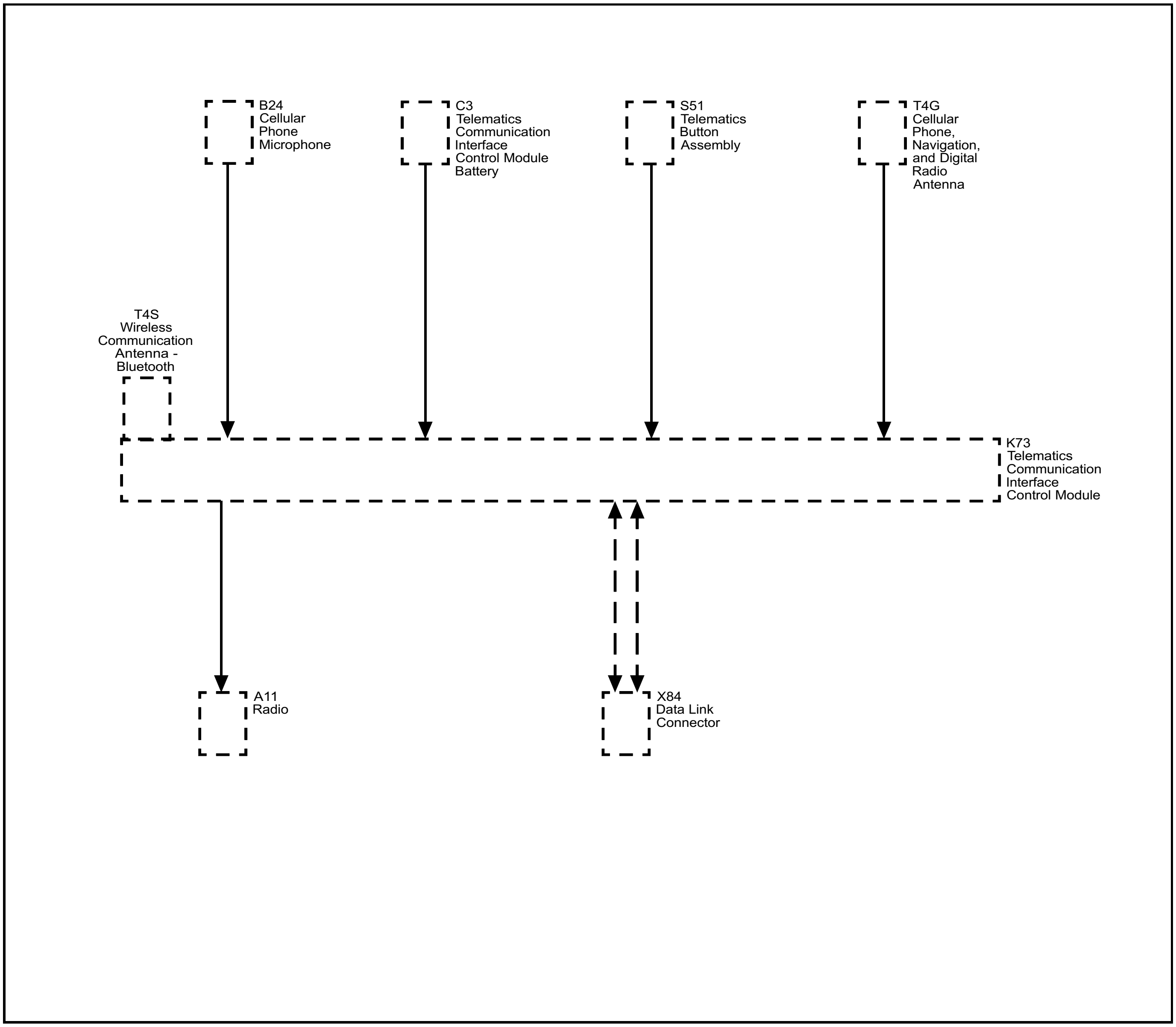
OnStar Description and Operation

This OnStar® system consists of the following components:

- Telematics communication interface control module
- OnStar® three button assembly
- Microphone
- Cellular antenna
- Navigation antenna
- Bluetooth® antenna (If equipped)
- Back up battery (If equipped)
- WiFi Hotspot (If equipped)
- TTY (Teletypewriter)

This system also interfaces with the factory installed vehicle audio system.

Onstar Block Diagram


B24 Cellular Phone Microphone
C3 Telematics Communication Interface Control Module Battery
S51 Telematics Button Assembly
T4G Cellular Phone, Navigation, and Digital Radio Antenna
T4S Wireless Communication Antenna - Bluetooth
K73 Telematics Communication Interface Control Module
A11 Radio
X84 Data Link Connector

3627470

Telematics Communication Interface Control Module

The OnStar Generation 10 system uses Global System for Mobile Communication (GSM) to communicate data and voice signals over the national cellular network. The module may also have the ability to act as a Wireless Local Area Network (WLAN) Wi-Fi hotspot similar to a home wireless router. The module houses an internal WLAN antenna enabling hotspot connectivity and streaming high speed media to the entertainment system. The module also may enable Teletypewriter (TTY) and be capable of Bluetooth communication utilizing an internal antenna. The module is capable of up to 4G LTE speeds and houses 2 technology systems, one to process Global Positioning System (GPS) data, and another for cellular information. The module sends and receives all cellular communications over two cellular antennas and cellular antenna coax cables.

The OnStar Gen 10 system has two antenna inputs, a primary cellular signal and a combined GPS/secondary cellular signal. The OnStar® system uses the Unitied States Global Positioning System (GPS) signals to provide location on demand. GPS is a space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near Earth where there is an unobstructed line of sight to four or more GPS satellites.

The module also has the capability of activating certain features such as, the horn, remote engine starting, initiating door lock/unlock, or activating the exterior lamps using the serial data circuits. These functions can be commanded by the OnStar® Call Center per a customer request or mobile device app depending on vehicle and customer subscription.

Dedicated circuits are used to connect the telematics communication interface control module to a microphone, the button assembly, radio, and if equipped the Back Up Battery (BUB). The telematics communication interface control module communicates with the rest of the vehicle over the serial data bus.

Power is provided by a dedicated, fused B+ circuit. Ground is provided through the vehicle wiring harness attached to the module. The power mode state is determined by the telematics communication interface control module through serial data messaging.

OnStar® Three Button Assembly

- The OnStar® button assembly may be part of the rearview mirror, or a separate, stand alone unit. The button assembly is comprised of 3 buttons or 3 capacitive touch buttons and status LED’s or an error indicator. The buttons are defined as follows:
  - The answer/end button, which is black with a white phone icon or a white driver figure seated with voice signals near its face, allows the user to answer and end calls or initiate speech recognition.
  - The blue OnStar® call center button, which displays the OnStar® logo, allows the user to connect to the OnStar® call center.
  - The emergency button, which displays white letters “SOS” with red background, sends a high priority emergency call to the OnStar® call center when pressed.

If the LED does not illuminate, this may indicate that the customers OnStar® subscription is not active or has expired. Push the blue OnStar button to connect to an advisor who can then verify the account status.

The telematics communication interface control module supplies 10 volts to the OnStar® button assembly on the keypad supply voltage circuit. When pressed, each button completes a circuit across a resistor allowing a specific voltage to be returned to the telematics communication interface control module on the keypad signal circuit. Depending upon the voltage range returned the telematics communication interface control module is able to identify which button has been pressed.

The OnStar® status LED or error indicator is located near the buttons. The LED is green when the system is ON and operating normally. When any indicator is illuminated and flashing, it is an indication that a call is in progress. When the LED is red, this indicates a system malfunction is present. In the event there is a system malfunction and the OnStar® system is still able to make a call, the LED will flash red during the call.

Each LED or error indicator is controlled by either the telematics communication interface control module over dedicated LED signal circuits or by low speed GM LAN serial data depending on the inside rearview mirror option. Ground for the LED is provided by the wiring harness attached to the button assembly.

Secondary OnStar® Controls

Some vehicles may have an additional button that when pushed can engage the OnStar® system. The button may be a symbol of a face with sound waves, or may say MUTE, or be a symbol of a radio speaker with a slash through it.

By engaging the OnStar® system with this feature, the user can interact with the system by use of voice commands. A complete list of these commands is supplied in the information provided to the customer. If the information is not available for reference, at any command prompt the user can say "HELP" and the telematics communication interface control module will return an audible list of available commands.

OnStar® Microphone

The cellular microphone can be part of the rearview mirror assembly, or a stand-alone unit in the headliner or roof console. In either case, the telematics communication interface control module supplies approximately 10V to the microphone on the cellular microphone signal circuit. The microphone modifies the 10V depending on the volume and voice being detected. A cellular microphone low reference circuit or a drain wire provides a ground for the microphone. The microphone signal circuits pass through the telematics communication interface control module to support entertainment voice recognition.

Cellular and GPS Antennas

The combination antenna will have any of the following antenna elements when equipped with OnStar:

- Primary cellular element
- Secondary cellular element
- GPS element
- Digital radio element
- AM/FM element

The Gen 10 OnStar® system uses 2 cellular antenna elements to send and receive cellular data, the primary cellular element and the secondary cellular element. The primary cellular signal is carried by a coax cable that connects the antenna directly to the telematics communication interface control module. Details of the secondary cellular signal are further described below.

The GPS antenna element is used to collect the signals of the orbiting GPS satellites. Within the antenna is housed a low noise amplifier that allows for a more broad and precise reception of this data. Also housed within the antenna is circuitry to combine the GPS signal and the secondary cellular signal. Without navigation, the combination GPS/secondary cellular signal is carried by a coax cable that connects directly to the telematics communication interface control module. The cable also provides a path for DC current for powering the antenna. With navigation, the combination GPS/secondary cellular signal is carried by a coax cable that connects to the navigation signal splitter. The splitter supplies the GPS signal to the navigation/entertainment system and the GPS/cellular signal to the telematics communication interface control module.

The digital radio element collects digital radio signals from two satellites and where necessary terrestrial repeaters. The digital radio signal is carried by a coax cable and connected to the digital radio receiver. Refer to Radio/Audio System Description and Operation for further details.

The radio signal is sent from a broadcast station and is then received by the AM/FM radio antenna element. The AM/FM radio signal is carried by a coax cable and is connected to the radio. Refer to Radio/Audio System Description and Operation for further details.

OnStar® RemoteLink

OnStar® RemoteLink is a mobile app to link mobile devices to a vehicle for limited diagnostics and feature controls. After downloading the app and registering the device, vehicle owners with an eligible vehicle can use their mobile devices to access real-time data from their vehicle and perform specific commands remotely.

All communication between the app and the vehicle is powered by OnStar's® advanced connected vehicle technology. An active OnStar® account as well as a valid OnStar® username and password are required to use the app. The remote commands must be enabled by logging into the user’s OnStar® account prior to using the app. Refer to the owners manual for available vehicle data and control features.

Compass Heading

The telematics communication interface module has a compass feature to calculate vehicle direction which is displayed via the instrument panel cluster or designated display. The compass heading is determined by dead reckoning until the GPS 3d fix is established. The dead reckoning is accomplished by using the yaw rate sensors and wheel ticks to determine heading changes from a GPS known heading. The GPS 3d fix heading is determined by the deferential of two locations. If “CAL” is displayed on the Instrument Panel Cluster or designated display refer to the owners manual for steps to calibrate the compass.

Bluetooth® (If Equipped)

Bluetooth® wireless technology is a short-range communications technology intended to replace the cables connecting portable and/or fixed devices while maintaining high levels of security. Only vehicles with steering wheel controls will have Bluetooth® functionality. In order to utilize the vehicle’s Bluetooth® system, a Bluetooth® equipped cellular phone is required.

The Bluetooth® antenna is internal to the telematics communication interface control module, radio or human machine interface module and is used to send and receive signals from a Bluetooth® enabled cellular phone. The available features and functions are determined by the software within the device being used and the telematics communication interface control module. The operating range of the signal from the vehicle is approximately 30 feet. Note that the operating range is dependent upon the cellular phone being used and battery level of the phone.

With Bluetooth® technology customers can experience hands-free calling as their Bluetooth® capable cellular phones are wirelessly connected to the vehicle. It will allow customers to place and receive calls using the steering wheel controls and voice recognition. The vehicle audio system will allow you to listen to your call through the vehicle speakers and adjust volume through steering wheel or radio controls.

Not all Bluetooth® cellular phones are guaranteed to work with the vehicle’s Bluetooth® system. Based on the cellular phone’s service provider and the manufacturer’s implementation of Bluetooth®, not all phones support all available Bluetooth® functionality. Bluetooth® enabled cellular phones will be tested for vehicle compatibility and a feature compatibility list will be provided via the GM Bluetooth® website: http://www.gm.com/vc/bluetooth/

Bluetooth® Features Supported

The following is a list of features supported by the Bluetooth® system. Note that not all devices will support all of the listed functions.

- Automatic reconnection – highest priority phone will automatically be connected to vehicle when vehicle ignition is on
- Hands-free dialing- via digits, redial, name tags (phone number saved to a nametag via voice recognition)
- Answering a call
- Ending a call
- Mute a Call
- Rejecting a call – ignore an incoming call
- Call Waiting
- Three-way Calling – initiated from hands-free system
- Send Number During a Call – this is used when calling a menu-driven phone system
- Transfer a Call – transfer call from vehicle to cellular phone and visa versa
- Voice Pass-Thru – allow access to the voice recognition commands on the cellular phone

Pairing a Bluetooth® Cellular Phone to the Vehicle

In order to use hands-free calling, the cellular phone must be paired to the vehicle. Up to five devices can be paired to the vehicle at one time, but only one can be connected at any given time. To pair a phone, the customer must know how to operate the Bluetooth® functionality of their phone. The pairing process must only be done one time for each phone, unless that phone’s information is deleted. The system will always generate a password and will provide that password if the device you are pairing does not support Secure Simple Pairing (SSP). If the device being paired does support SSP the system will not provide the password and automatically pair the device. For safety reasons, the pairing process is disabled while the vehicle is moving.

Once the Bluetooth® cellular phone has been paired with vehicle, it will automatically connect to the vehicle when the ignition is on and the device is on. When more than one paired phone is in the vehicle, the phone with the highest priority will be connected. If the cellular phone is in use while getting into the vehicle, the phone can be switched to hands-free mode with the press of a button. In addition, a call in progress can be transferred from the vehicle hands-free mode to the phone to continue the call as the customer exits the vehicle.

Complete pairing instructions are provided in the Vehicle Owners Manual.

Back-up Battery (If Equipped)

Note: Do not disconnect the main vehicle battery or remove the OnStar® fuse with the ignition key in any position other than OFF. Disconnecting power to the OnStar® module in any way while the ignition is ON or with retained accessory power activated may cause activation of the OnStar® Back-Up Battery. This action is per design as the back-up battery is designed to provide power to the telematics communication interface control module so an emergency notification call can be made after an event where the main battery is disabled. Once the Back-Up Battery is activated it will stay on until the power is restored back to the telematics communication interface control module. The telematics communication interface control module naturally chooses the main supply voltage as it's default supply, but if the main supply is removed or lost for any reason the OnStar® module will use the Back-Up Battery as a power supply as long as the default supply can not be detected. The back-up battery is not rechargeable and once discharged below 9.5 volts the back-up battery must be replaced.

Certain OnStar® equipped vehicles may also be equipped with a back-up battery. The back-up battery is a non-rechargeable, lithium battery intended to provide an auxiliary power source for the telematics communication interface control module in the event where power from the main vehicle battery is lost.

The back-up battery is intended to have a limited life span of approximately 4 years and is designed to maintain an open circuit voltage between 16 V and 9 V throughout this period. This allows the battery to power the basic functions of the telematics communication interface control module for least one 200 second (5 minute) call at the end of the 4 year span, should the main vehicle battery be lost. In the case of a vehicle losing vehicle battery power, OnStar will switch over to the backup battery based on an internal algorithm. It will look for an air-bag deploy, or near-deploy, messages from the SDM. If there are no messages the OnStar module will stay wake for a few minutes longer and monitor the buttons in the mirror. If not pressed, the modules will power down and shut off completely.

The back-up battery is connected to the telematics communication interface control module through the back-up battery positive voltage circuit and back-up battery ground circuit and is protected from a short circuit by means of an internal fuse. In the event the back-up battery, battery positive voltage circuit is shorted to the back-up battery ground circuit or chassis ground, the fuse will open and render the back-up battery permanently inoperable. The status of the back-up battery and its associated wiring is monitored by the telematics communication interface control module.

WiFi Hotspot

The telematics communication interface control module acts as a Wireless Local Area Network (WLAN) WiFi hotspot router and uses direct 4G LTE connectivity to the internet. It has the ability to connect up to 7 devices at one time. A data plan is required and when purchased, a security default password is established. There are several ways to change the SSID or password, by placing a call to the OnStar Call Center, by using the Gen 10 mobile app or through the scan tool.

The system utilizes a secure autoconnect feature between the telematics communication interface control module and the radio/HMI. No user interaction is required, it is always available and ready to connect to a dedicated in car device. The ignition must be in Run, Accessory or RAP for WiFi to operate.

Audio System Interface

When the OnStar® requires audio output, a serial data message is sent to the audio system to mute all radio functions and transmit OnStar® originated audio. The OnStar® audio is transmitted to the vehicle audio system by a dedicated signal circuit and a low reference circuit.

The audio system will mute and an audible ring will be heard though the speakers if the vehicle receives a call with the radio ON.

On some vehicles, the HVAC blower speed may be reduced when the OnStar® system is active to aid in reducing interior noise. When the system is no longer active, the blower speed will return to its previous setting.

OnStar® Sleep Cycle

The OnStar® system uses a unique sleep cycle to allow the system to receive cellular calls while the ignition is in the OFF position and retained accessory power mode has ended. This cycle enables the telematics communication interface control module to perform remote functions, such as door unlock, as commanded over the air by the OnStar® Call Center, and to continue to maintain an acceptable level of battery electrical drain.

The OnStar® system uses 4 states of readiness, depending upon the type of cellular market the vehicle is in when the ignition is put into the OFF state:

- High power
- Low power
- Sleep
- Digital standby

The high power state is in effect whenever the ignition is in the ON or RUN position, or retained accessory power is enabled, and the OnStar® system is sending or receiving calls or when the system is performing a remote function.

The low power state is in effect when the OnStar® system is idle with the ignition in the ON or RUN position, or with retained accessory power enabled.

The sleep state is entered after the vehicle has been shut off and the retained accessory power has timed out while in an analog cellular area. At a predetermined time recorded within the telematics communication interface control module, the system re-enters the low power state to listen for a call from the OnStar® Call Center for 1 minute. After this interval, the system will again return to the sleep state for 9 minutes. If a call is sent during the 1 minute interval, the OnStar® system will receive the call and immediately go into the high power mode to perform any requested functions. If no call is received during the 1 minute interval, the system will go back into the sleep mode for another 9 minutes. This process will continue for up to 48 hours, after which the OnStar® system will turn off until the ignition is turned to the ON or RUN position.

The digital standby power state is entered after the vehicle has been shut off and the retained accessory power has timed out while in a digital cellular area. When in digital standby mode, the OnStar® module is able to perform all remote functions as commanded by an OnStar® advisor at any time, for a continuous 120 hours. After 120 hours, the OnStar® module will go into sleep mode until a wake up signal from the vehicle is seen by the telematics communication interface control module. If the OnStar module loses the digital cellular signal it will revert to analog mode and follow the standard sleep state (9 minutes OFF, 1 minute standby) based on the time of the GPS signals, this will continue until a digital cellular signal is again received.

If the OnStar® system loses battery power while the system is in a standby or sleep mode, the system will remain OFF until battery power is restored and the ignition is turned to the ON or RUN position.

Features

OnStar® Personal Calling

The hands free, OnStar® personal calling cellular phone feature is an additional feature of the OnStar® system. This feature is embedded within the telematics communication interface control module; however it must be activated by an OnStar® advisor. OnStar® personal calling operates similar to most hand held cellular phones in that the availability for its usage is based on minutes or units. The customer must have a current OnStar® subscription, as this feature cannot be utilized without it. To use OnStar® personal calling, the customer must also purchase units (minutes) as outlined in the owners guide provided with the OnStar® system. Units begin to deplete, 1 unit is equal to 1 minute, as the customer makes outbound phone calls, answers inbound phone calls, or while connected to the OnStar® virtual advisor. In addition, units may also have an expiration date, depending upon the type of units purchased.

Customers have the ability to store telephone numbers within the module, referenced by a nametag for the convenience of frequently dialed numbers. After storing a nametag, the user can dial this number by initiating the OnStar® personal calling feature, speaking the word "call," and repeating the nametag assigned.

Turn by Turn Navigation

Turn by Turn Navigation allows the driver to contact OnStar® to obtain directions for driving from a current location to a desired location. The Turn by Turn Navigation system stores your planned route and continually checks your position along that route, when you deviate from the planned route, the system will recognize this and prompt the driver with verbal prompts for how to proceed. The driver then responds verbally to direct the system to continue the current routing or to recalculate the route because of a missed turn.

Advisor Record Feature

The Advisor Record Feature allows the user to store any information given during a call with an OnStar® Advisor. Recording is activated by pressing the blue OnStar button during a call; pressing the button a second time stops the recording. The stored information can be played back by pressing the phone button on the three button assembly and using the voice command “Advisor Playback”.

Teletypewriter (TTY) Users

OnStar has the ability to communicate to deaf, hard-of-hearing, or speech-impaired customers while in the vehicle. The available dealer-installed TTY system can provide in-vehicle access to all of the OnStar services, except Virtual Advisor and OnStar Turn-by-Turn Navigation.

Deactivated OnStar® Accounts

In the event a customer has not renewed their OnStar® account after expiration or the account was never activated, OnStar® will make a discrete cellular call to the vehicle to deactivate the OnStar® system. Before taking this action, customers are notified that the OnStar® system in their vehicle will be deactivated unless they elect to renew the account. After the OnStar® account has been deactivated, customers will experience the following:

- The OnStar® status LED will not illuminate.
- The OnStar® system will NOT attempt to connect to the OnStar® Call Center in the event of a collision or if the vehicle's front air bags deploy for any other reason.
- An emergency button press will play a demo message indicating the service has been deactivated.
- An OnStar® Call Center button press will connect the customer with a dedicated sales team who can sell an OnStar® subscription and reactivate the vehicle. Depending on the type of OnStar® hardware in the vehicle, the customer may first hear a demonstration message stating there is no current OnStar® subscription for the vehicle, and directing the customer what to do to activate services.
- OnStar® personal calling will not be available, as this feature requires the customer to have a current OnStar® account. Attempts to use this feature may result in cellular connection failure messages and the inability to connect to the number dialed.

Certain vehicles that have never had an active OnStar® account, or that have been deactivated, may be unable to establish a connection with the OnStar® Call Center. When normal published diagnostic procedures do not indicate a possible cause for the no connect concern, the vehicle may have been deactivated. For deactivated vehicles, a no connect response should be considered normal operation. Further diagnosis and subsequent repair is only necessary should the customer elect to become an active OnStar® subscriber or renew the account subscription.

OnStar® Cellular, GPS, and Diagnostic Limitations

The proper operation of the OnStar® System is dependent on several elements outside the components integrated into the vehicle. These include the National Cellular Network Infrastructure, the cellular telephone carriers within the network, and the GPS.

The cellular operation of the OnStar® system may be inhibited by factors such as the users range from an analog or digital cellular tower, the state of the cellular carrier’s equipment, and the location where the call is placed. Making an OnStar® key press in areas that lack sufficient cellular coverage or have a temporary equipment failure will result in either the inability of a call to complete with a data transfer or the complete inability to connect to the OnStar® Call Center. The OnStar® system may also experience connection issues if the identification numbers for the module, station identification number, electronic serial number or manufacturers electronic ID, are not recognized by the cellular carriers local signal receiving towers.

The satellites that orbit earth providing the OnStar system with GPS data have almost no failures associated with them. In the event of a no GPS concern, the failure will likely lie with the inability of the system to gain GPS signals because of its location, i.e. in a parking structure, hardware failure, or being mistaken with an OnStar® call which has reached the Call Center without vehicle data.

During diagnostic testing of the OnStar® system, the technician should ensure the vehicle is located in an area that has a clear unobstructed view of the open sky, and preferably, an area where analog or digital cellular calls have been successfully placed. These areas can be found by successfully making an OnStar® keypress in a known good OnStar® equipped vehicle and confirming success with the OnStar® Call Center advisor. Such places can be used as a permanent reference for future OnStar® testing.

Mobile Identification Number and Mobile Directory Number

The telematics communication interface control module utilizes 2 numbers for cellular device identification, call routing and connection, a mobile identification number and a mobile directory number. The mobile identification number represents the number used by the cellular carrier for call routing purposes while the mobile directory number represents the number dialed to reach the cellular device.

Operation of the OnStar® Speech Recognition Systems

OnStar® users communicate with 2 speech recognition systems. Speech recognition allows the user to speak to one computer in the vehicle, and one reached over a phone line. The computer tries to understand the users command, and responds by speaking back, or by taking the appropriate action, e.g. dialing the phone.

- Personal Calling uses a speech recognition system that resides in the vehicle. When the user presses the phone button, the system states, Ready, and listens for the user's command. The user can speak commands to control the hands-free phone.
- Virtual advisor is a remote speech recognition system that the caller can access by making a phone call. The user connects to virtual advisor by requesting it during personal calling use. The user is then transferred to the virtual advisor server and talks to it via a cellular connection.

The OnStar® speech recognition systems use speech technology that is designed to understand a wide range of American English speakers. Although there is no one right way to speak English, the system will work best when users try to modify their pronunciation should they encounter difficulty. Users who do not obtain good results are advised to try the tips and workarounds found in the Infotainment System Manual or the Owners Manual.

Radio/Audio System Description and Operation (IO5/IO6)

The entertainment system on this vehicle may have several different configurations available to it. To determine the specific configuration of the vehicle, please see the Service Parts ID Label, and refer to *CELL Link Error - Link target cell (cell ID 47866) is invalid for this publication.*.

Each item in the list below represents topics covered in detail below.

- Data Communications
- Remote Radio Receiver
- Human Machine Interface Module
- Media Disc Player
- Audio Amplifier (If equipped)
- Speaker Operation
- Infotainment Controls and Display
- Antenna System
- Radio Reception
- Theft Deterrent
- Bluetooth ® (if equipped)
- Applications (if equipped)
- Auxiliary Audio Input Jack
- USB Port and SD Card Reader
- Navigation System Components and Features (if equipped)
- Valet Mode
- OnStar ®

- Steering Wheel Controls (If equipped)
- Auto Volume Control

Data Communications

The infotainment system communicates with other devices on multiple serial data networks during operation. The infotainment system utilizes the Media Oriented Systems Transport (MOST) bus, Local Interconnect Network (LIN) and GMLAN to establish communications. For additional information refer to *Data Link Communications Description and Operation on page 5-8*

Remote Radio Receiver

The radio is the MOST BUS master. The radio also communicates with other components and systems within the vehicle via GMLAN.

The remote radio receiver is responsible for receiving all broadcast audio bands. Broadcast signals from AM, FM, and XM bands are transmitted to the radio via the vehicle antenna systems.

Radio Power

The radio receives battery power and ground from the vehicle harness.

The radio does not use a discrete ignition feed circuit for power moding. The power mode master provides the system power mode to the radio via serial data messages. The power mode master determines the system power mode by processing power mode information from ignition switch inputs. Serial data power modes supported by the radio are OFF, ACCESSORY, RUN, and CRANK REQUEST.

Radio Audio Outputs

When not equipped with an amplifier, the radio outputs all audio signals to the speakers via the vehicle wiring harness.

When equipped with an amplifier, the radio outputs all audio signals digitally over the MOST bus.

Human Machine Interface Module

The human machine interface module is responsible for the following: Video for the infotainment display, Bluetooth ®, USB, memory card reader, and speech recognition functions.

The human machine interface module communicates with the info display module via the LIN bus for control information, touch communications and dimming level. Digital video data is sent to the display through a dedicated video cable.

Media Disc Player

The media disc player is responsible for playing optical media for the infotainment system.

The media disc player receives control information and outputs digital audio over the MOST bus.

The media disc player receives battery power and ground from the vehicle harness.

Audio Amplifier (If equipped)

Amplifier Interface

The amplifier receives battery power and ground from the vehicle harness. . The audio amplifier is a participant on the MOST network. The audio amplifier receives audio signals and control information from the MOST bus.

Amplifier Operation

The purpose of the amplifier is to increase the power of a voltage or current signal. The output signal of an amplifier may consist of the same frequencies as the input signal or it may consist of only a portion of the frequencies as in the case of a subwoofer or midrange speaker. The audio amplifier amplifies the signal and sends it to the appropriate speakers.

Each of the audio output channel circuits (+) and (−), at the audio amplifier have a DC bias voltage that is approximately one half of the battery voltage. When using a DMM, each of the audio output channel circuits will measure approximately 6.5V DC. The audio being played on the system is produced by a varying AC voltage that is centered around the DC bias voltage on the same circuit. The AC voltage is what causes the speaker cone to move and produce sound. Both the DC bias voltage and the AC voltage signals are needed for the audio system to properly produce sound.

The audio amplifier is also responsible for operation of active noise cancellation. Refer to *CELL Link Error - Link target cell (cell ID 194567) is invalid for this publication.* for more information.

Speaker Operation

Speakers turn electrical energy into mechanical energy to move air, using a permanent magnet and an electromagnet. The electromagnet is energized when the radio or amplifier (if equipped) delivers current to the voice coil on the speaker. The voice coil will form a north and south pole that will cause the voice coil and the speaker cone to move in relation to the permanent magnet. The current delivered to the speaker is rapidly changing alternating current (A/C). This causes the speaker cone to move in two directions producing sound.

Infotainment Controls and Display

The infotainment display and controls are a separate component from the radio, combined into an assembly. The assembly contains the control knobs and buttons for all audio and HVAC functions and the information display. The assembly is supplied battery voltage and ground from the vehicle harness.

Control information, touch communications and dimming level for the display are communicated via a LIN serial data circuit to the human machine interface module.

The human machine interface module sends the display digital video data for on-screen display through a dedicated video cable.

The controls communicate via a LIN serial data circuit with the remote radio receiver . Messages communicated include the following:

- Wake-up/power state messages
- Diagnostic information
- Button presses/knob rotations
- Commands for the state of indicators
- Back-lighting dimming level

HVAC data for controls and status indicators is communicated between the HVAC controls and the HVAC control module with a separate LIN serial data circuit. HVAC status screen information from the HVAC control module is transmitted to the radio on the GMLAN serial data circuit. The radio communicates the desired screen information to the human machine interface module to be sent to the information display using the video data circuits.

Antenna System

Mast Antenna

The mast antenna is responsible for AM and FM radio reception. The antenna is attached to a base. The coaxial cable is connected to the base, and this cable is connected to the radio.

Multi-Band Antenna

The multi-band antenna is located on the roof of the vehicle. This type of antenna may be used with the AM/FM radio, but is primarily for cellular, GPS signals, and XM signals, if the vehicle has these features. Keep this antenna clear of snow and ice build up for clear reception. If the vehicle has a sunroof, the performance of the system may be affected if the sunroof is open. Loading items onto the roof of the vehicle can interfere with the performance of the system, ensure the multi-band antenna is not obstructed.

Radio Reception

AM/FM Radio Signal

The radio signal is sent from a broadcast station and is then received by an antenna. The strength of the signal received depends on the following:

- The power output (wattage) of the broadcasting station
- The location of the vehicle (or receiver) relative to the broadcast tower.
- Height of the broadcast antenna
- Height of the receiving antenna
- Obstacles between the tower and the receiver
- Atmospheric conditions
- What band (AM or FM) the station is broadcasting
- Type of antenna and the ground plane

Digital Radio Receiver (If equipped)

The XM satellite receiver is integrated into the radio. XM satellite radio provides digital radio reception. The XM signal is broadcast from two satellites and, where necessary, terrestrial repeaters. The high power satellites allow the antenna to receive the XM signal even when foliage and other partial obstructions block the antennas view of the satellite. Terrestrial repeaters are used in dense urban areas. These repeaters will receive the satellite signal and re-broadcast them at much higher power levels in order to ensure reception in areas with densely packed tall buildings. A service fee is required in order to receive the XM service.

Radio Data System (RDS)

The RDS feature is available only on FM stations that broadcast RDS information. This system relies upon receiving specific information from these stations and only works when the information is available. While the radio is tuned to an FM-RDS station, the station name or call letters display. RDS data is carried in what is known as a "subcarrier". A subcarrier is a frequency that the FM broadcaster is authorized to use to send data that is not audible in the main audio program.

RDS functions will only work with FM broadcast stations that are broadcasting RDS data. Not all FM Broadcast stations broadcast RDS data or offer all of the RDS services.

The information displayed is dependent upon the information broadcast by the particular station. The information may vary greatly between stations. RDS functions may not work properly when reception is weak, reception is of poor quality, or RDS is not implemented properly by the FM Broadcaster. In some cases, a radio station broadcasting incorrect information may cause the RDS features of the radio to appear to work improperly.

With RDS, the radio can do the following:

- Display text information such as: station identification, type of programming, and general information (artist and song title, station messages, call in phone numbers, etc.).
- Seek to stations broadcasting the selected type of programming
- Receive announcements concerning local and national emergencies
- Receive alert warnings of local or national emergencies. When an alert announcement comes on the current radio station, ALERT! displays. You will hear the announcement, even if the volume is low or a CD is playing. If a CD is playing, play stops during the announcement. Alert announcements cannot be turned off. ALERT! is not affected by tests of the emergency broadcast system. This feature is not supported by all RDS stations.

Theft Deterrent

The radio theft deterrent system is intended to disable or limit radio functionality if incorrect vehicle information is received by the radio. The radio disables functionality if the VIN information received by the radio does not match the VIN information that has been learned by the radio. The radio receives this information via serial data. A possible cause of incorrect VIN info could be the radio was originally installed in another vehicle.

The radio has the following theft operating modes as part of the theft deterrent system:

- Normal Mode: The radio has learned a correct VIN sequence and the VIN information received via serial data matches the learned VIN sequence. In this mode the radio has full functionality.
- No VIN Mode: The radio has not received or learned a correct VIN sequence. In this mode the radio has limited functionality.
- Theft Detected Mode: The radio has learned a correct VIN sequence and the VIN information received via serial data does NOT match the learned VIN sequence. In this mode the radio may be disabled or have limited functionality. The radio display will indicate that theft protection is active.

Bluetooth ® (If equipped)

Bluetooth ® wireless technology is a short-range communications technology intended to replace the cables connecting portable and/or fixed devices while maintaining high levels of security. The operating range of the signal is approximately 30 feet.

The available features and functions are determined by the type of device and the software within the devices being used. For a feature or function to operate, it must be supported in both devices.

The first connection between devices is established through a process called pairing. In order to pair two devices, a password (passkey) has to be exchanged between the two devices. One device will generate the password, the other device accepts the password to complete the process. Once the devices are paired, future connections between the devices will occur automatically when the devices are on and within range of each other.

The Bluetooth ® hardware is internal to the human machine interface module. The human machine interface module supports streaming of data (music, voice, information) from cellular phones and other mobile devices that support those features. The human machine interface module is also capable of interfacing with cellular phones for hands-free features.

- The device must be paired to the system to use the available Bluetooth ® feature(s). The pairing process must only be performed once for each device, unless that device's information is deleted.
- Up to five devices can be paired, but only one can be connected at any given time.
- Streaming Audio allows playing music from the mobile device wirelessly. Music stored on the mobile device can be viewed and controlled from the display.
- To stream audio from a mobile device, the device must be unlocked, and any additional applications should be closed.

Refer to the vehicle owners manual, supplements, and the device manufacturers information for pairing instructions.

Applications (If equipped)

When the system is equipped with Bluetooth ®, the system is capable of using applications, commonly referred to as apps.

The term application refers to any piece of software that works on a system (hardware) that is being operated by it's own software. Applications are typically small software programs which uses the hardware to perform a specific task, as opposed to operating the entire system.

- For an application to be used, it must be installed on both the vehicle infotainment system and a compatible mobile device.
- The device must be connected to the system. this may be done wirelessly via Bluetooth ®, or via the vehicle USB port. Refer to the device manufacturers information for the proper connection method.
- When the device is connected, the vehicle infotainment system is used to remotely access and control the application on the mobile device.
- The application must work correctly on the device to work with the vehicle infotainment system.
- The user may be required to log-in to the application on the mobile device before using the application from the vehicle controls.
- Using applications will use the device's data plan.
- The device must be unlocked, and any additional applications should be closed.

Refer to the owner's manual and supplements for information on mobile devices, control, and operation.

Auxiliary Audio Input Jack (If equipped)

The infotainment system may have a 3.5mm (1/8 in.) auxiliary audio input jack located in the center console. The auxiliary audio input jack interfaces directly with the radio. Audio signals from the device are sent to the radio from the auxiliary jack via the left, right, and common audio signal circuits.

- If an auxiliary device has already been connected, press the AUX or CD/AUX button to select the device.
- Playback of an audio device that is connected to the 3.5mm jack can only be controlled using the controls on the device.
- The volume control on the device may need to be adjusted to ensure sufficient playback volume through the infotainment system.

USB Port and SD Card Reader

The USB port and the card reader slot interface with a hub device, internal to the auxiliary jack, USB, and memory card receptacle assembly. The auxiliary jack, USB, and memory card receptacle assembly receives fused battery voltage and ground from the harness to power the internal hub device as well as providing additional amperage to power USB devices.

The internal hub device interfaces directly with the human machine interface module via a standard USB cable. A Mini type USB connector is used to connect the cable at the USB port and at the human machine interface module and at the auxiliary jack, USB, and memory card receptacle. Standard USB male to female connections are typically used for connecting USB cables together where an in-line connection is required. An in-line cable connection is typically found between the console and I/P harness.

USB Port

The USB port allows connectivity to the infotainment system from portable media players or a USB storage device (memory stick/ flash drive). Once connected, the device can be controlled from the radio controls.

Not all portable media player devices or file types are compatible. Connection to USB HUB devices is not supported.

Refer to the owner’s manual for information on USB devices, control, and operation.

SD Card Reader

The infotainment system uses the SD card reader as a mass storage device, similar to a USB storage device.

Refer to the owners manual for information on media types supported via the SD card reader.

Navigation System Components and Features (if equipped)

The human machine interface module provides navigation functionality, if equipped. The human machine interface module provides the following:

- Connection to the global positioning system (GPS) antenna, which provides the vehicle position information.
- Map data for navigation and map route guidance, stored in the human machine interface modules internal memory.
- Route guidance with verbal prompts to the operator.
- Traffic and weather information for display on the navigation system map (with active subscription, where available).

Global Positioning System (GPS) Antenna

The global positioning system (GPS) antenna is part of the multi-band antenna located on the roof of the vehicle. The GPS antenna is used to collect the signals of the orbiting GPS satellites. Within the antenna is housed a low noise amplifier that allows for a more broad and precise reception of this data. The GPS antenna amplifier is powered through the coaxial cable.

The antenna is connected to the human machine interface module directly, or through a signal splitter. The signal splitter is a component for dividing the navigation signal into two paths without any transmission loss. This allows the use of a single GPS antenna to provide a signal to both the human machine interface module and the telematics communication interface module.

Route Guidance

The map will display the route to the selected destination. Voice prompts alert the operator of upcoming events (turns) and arrivals at the destination. The navigation system will automatically recalculate if the route is not followed. The human machine interface module uses data received from the global positioning system (GPS) satellites, the vehicle speed signal. and serial data information to accurately display the current position of the vehicle.

Points of Interest

The map database provides point of interest information. Points of interests are locations that are frequently visited. Points of interest can be can be displayed on the map or set as a destination. The following are some of the available Points of interests:

- Gas Station
- Restaurant
- College
- Police Station

Valet Mode

Valet Mode is a customer enabled feature of the infotainment system, found in the settings menu, if equipped. The customer creates and inputs a four digit code using the infotainment controls. Confirming the code and selecting LOCK will lock the infotainment system, steering wheel controls and other vehicle features, dependant on vehicle equipment. The vehicle will remain in valet mode until the same four digit code is reentered.

In the event that the four digit code is forgotten, the scan tool can be used to clear the Valet Mode Code.

OnStar ® (If equipped)

When OnStar is activated, a serial data message is sent to the radio that activates a software program. When the software begins its process, the fade goes to the front, Bass and Treble are set to the mid range, the outputs are mono, and the audio source is OnStar. OnStar takes priority over any other audio source. All of these actions are preset values stored in the radio.

For additional OnStar information, refer to *OnStar Description and Operation on page 3-20*.

Steering Wheel Controls (If equipped)

Some audio functions are available using the steering wheel controls. The steering wheel controls duplicate the function of the primary controls available on the radio.

For additional information on steering wheel controls, refer to *CELL Link Error - Link target cell (cell ID 148745) is invalid for this publication.*.

Auto Volume Control

With auto volume control, the audio system will adjust automatically to make up for road and wind noise as you drive, by increasing the volume as vehicle speed increases. To use auto volume control, set the volume at the desired level, and then select either Low, Medium, or High. To turn auto volume control off, select the Off screen button.

Radio/Audio System Description and Operation (IOB)

The entertainment system on this vehicle may have several different configurations available to it. To determine the specific configuration of the vehicle, please see the Service Parts ID Label, and refer to *CELL Link Error - Link target cell (cell ID 47866) is invalid for this publication.*.

Each item in the list below represents topics covered in detail below.

- Radio Circuit Operation
- Information Display and Controls
- Antenna System
- Radio Reception
- Speaker Operation
- Audio Amplifier (If equipped)
- Theft Deterrent
- Bluetooth ® (if equipped)
- Auxiliary Audio Input Jack (If equipped)
- USB Port (If equipped)
- OnStar ®
- Steering Wheel Controls (If equipped)
- SCV (Speed Compensated Volume)
- FOTA (Firmware Over The Air)

Radio Circuit Operation

Radio Power

The radio is supplied power by a fused B+ circuit. The radio does not use a discrete ignition feed circuit for power moding. The power mode master provides the system power mode to the radio via serial data messages. The power mode master determines the system power mode by processing power mode information from ignition switch inputs. Serial data power modes supported by the radio are OFF, ACCESSORY, RUN, and CRANK REQUEST.

Radio Retained Accessory Power

The radio retained accessory power system is controlled by serial data. The activation/termination is the same as relay operation (see Retained Accessory Power Description and Operation) with one exception; the only door switch that will turn off the radio during retained accessory power is the driver door open switch.

Radio Grounds

The vehicle harness provides a ground for the radio circuits. The radio may also be case grounded.

Radio Data Link Communication

The radio communicates with other modules via serial data.

Radio Audio Outputs

Each of the audio output channel circuits (+) and (-), at the radio have a DC bias voltage that is approximately one half of battery voltage. The audio being played on the system is produced by a varying AC voltage that is centered around the DC bias voltage on the same circuit. The AC voltage is what causes the speaker cone to move and produce sound. The frequency (Hz) of the AC voltage signal is directly related to the frequency of the input (audio source playing) to the audio system. Both the DC bias voltage and the AC voltage signals are needed for the audio system to properly produce sound.

Information Display and Controls

The info display module and radio controls can be separate components from the radio or combined with the radio into one assembly.

When the info display module and radio controls are separate the radio controls communicate radio control inputs directly to the radio through discrete circuits for volume up, volume down and power ON button. It also uses a series of resistors through a single signal circuit when the home, seek up, seek down and phone buttons are pressed. After receiving the message the radio will perform the requested function. The info display module receives digital video data from the radio for on-screen display information through the LVDS (Low Voltage Differential Signal) cable. The radio communicates with the info display module over the radio display touch interrupt request signal for touch screen inputs.

Antenna System

Multi-Band Antenna (if equipped)

The multi-band antenna is located on the roof of the vehicle. This type of antenna may be used with the AM/FM radio, cellular and GPS signals. Keep this antenna clear of snow and ice build up for clear reception. If the vehicle has a sunroof, the performance of the system may be affected if the sunroof is open. Loading items onto the roof of the vehicle can interfere with the performance of the system, ensure the multi-band antenna is not obstructed.

Active Antenna (if equipped)

The active antenna system uses an integral antenna applied as an appliqué to the rear glass. The antenna module receives both AM and FM signals from the rear glass antenna. The antenna is part of the rear window and looks similar to the defogger grid. One antenna receives AM signals while the other antenna receives FM signals. Any damage to the antenna requires replacing the glass.

The radio antenna module is enabled when the radio is turned on. The radio provides battery voltage to the antenna module using the center conductor of the antenna coaxial cable. When a 12 V signal is seen by the module on the center conductor of the antenna coax, both AM and FM signals are amplified.

Radio Reception

AM/FM Radio Signal

The radio signal is sent from a broadcast station and is then received by an antenna. The strength of the signal received depends on the following:

- The power output (wattage) of the broadcasting station
- The location of the vehicle (or receiver) relative to the broadcast tower.
- Height of the broadcast antenna

- Height of the receiving antenna
- Obstacles between the tower and the receiver
- Atmospheric conditions
- What band (AM or FM) the station is broadcasting
- Type of antenna and the ground plane

Radio Data System (RDS)

The RDS feature is available only on FM stations that broadcast RDS information. This system relies upon receiving specific information from these stations and only works when the information is available. While the radio is tuned to an FM-RDS station, the station name or call letters display. RDS data is carried in what is known as a "subcarrier". A subcarrier is a frequency that the FM broadcaster is authorized to use to send data that is not audible in the main audio program.

RDS functions will only work with FM broadcast stations that are broadcasting RDS data. Not all FM Broadcast stations broadcast RDS data or offer all of the RDS services.

The information displayed is dependent upon the information broadcast by the particular station. The information may vary greatly between stations. RDS functions may not work properly when reception is weak, reception is of poor quality, or RDS is not implemented properly by the FM Broadcaster. In some cases, a radio station broadcasting incorrect information may cause the RDS features of the radio to appear to work improperly.

With RDS, the radio can do the following:

- Display text information such as: station identification, type of programming, and general information (artist and song title, station messages, call in phone numbers, etc.).
- Seek to stations broadcasting the selected type of programming
- Receive announcements concerning local and national emergencies
- Receive alert warnings of local or national emergencies. When an alert announcement comes on the current radio station, ALERT! displays. You will hear the announcement, even if the volume is low or if an auxiliary device is playing. If an auxiliary device is playing, play stops during the announcement. Alert announcements cannot be turned off. ALERT! is not affected by tests of the emergency broadcast system. This feature is not supported by all RDS stations.

Digital Radio Receiver (If equipped)

The vehicle may have one of two digital radio options, satellite transmitted (XM-Sirius) or terrestrial Digital Audio Broadcast (DAB) depending on geographical area.

XM-Sirius

The XM satellite receiver is integrated into the radio. XM satellite radio provides digital radio reception. The XM signal is broadcast from two satellites and, where necessary, terrestrial repeaters. The high power satellites allow the antenna to receive the XM signal even when foliage and other partial obstructions block the antennas view of the satellite. Terrestrial repeaters are used in dense urban areas. These repeaters will receive the satellite signal and re-broadcast them at much higher power levels in order to ensure reception in areas with densely packed tall buildings. A service fee is required in order to receive the XM service.

Digital Audio Broadcast (DAB)

The DAB receiver is integrated into the radio. DAB radio provides digital radio reception. The DAB signal is broadcast from terrestrial transmitters. Services available can include: main radio stations, additional stations (news, sports, etc..) and data services (digital images, video and other data). The availability of services is dependent upon broadcasters in the area. The strength of the DAB signal depends on the following:

- The power output (wattage) of the broadcasting station
- Location of the vehicle (or receiver) relative to the broadcast tower
- Height of the broadcast antenna
- Height of the receiving antenna
- Obstacles between the tower and the receiver
- Type of antenna and the ground plane

Speaker Operation

Speakers turn electrical energy into mechanical energy to move air, using a permanent magnet and an electromagnet. The electromagnet is energized when the radio or amplifier (if equipped) delivers current to the voice coil on the speaker. The voice coil will form a north and south pole that will cause the voice coil and the speaker cone to move in relation to the permanent magnet. The current delivered to the speaker is rapidly changing alternating current (A/C). This causes the speaker cone to move in two directions producing sound.

Audio Amplifier (If equipped)

Amplifier Interface

A fused battery voltage circuit provides the main amplifier power. A switched 12 V output from the radio is used to control the power - state of the amplifier. To respond quickly to audio input and control signals, the amplifier is ON in all vehicle power modes except OFF and CRANK Request. The internal amplifier bridges are fully powered and unmuted when the amplifier receives the switched 12 V input.

Amplifier Operation

The purpose of the amplifier is to increase the power of a voltage or current signal. The output signal of an amplifier may consist of the same frequencies as the input signal or it may consist of only a portion of the frequencies as in the case of a subwoofer or midrange speaker. The radio creates a low level stereo audio output signal, which is sent at the user-defined volume level to the audio amplifier. The audio amplifier amplifies the signal and sends it to the appropriate speakers. Each of the audio output channel circuits (+) and (-), from the amplifier have a DC bias voltage that is approximately one half of battery voltage. The audio being played on the system is produced by a varying AC voltage that is centered around the DC bias voltage on the same circuit. The AC voltage is what causes the speaker cone to move and produce sound. The frequency (Hz) of the AC voltage signal is directly related to the frequency of the input (audio source playing) to the audio system. Both the DC bias voltage and the AC voltage signals are needed for the audio system to properly produce sound.

Theft Deterrent

The radio theft deterrent system is intended to disable or limit radio functionality if incorrect vehicle information is received by the radio. The radio disables functionality if the VIN information received by the radio does not match the VIN information that has been learned by the radio. The radio receives this information via serial data. A possible cause of incorrect VIN info could be the radio was originally installed in another vehicle.

The radio has the following theft operating modes as part of the theft deterrent system:

- Normal Mode: The radio has learned a correct VIN sequence and the VIN information received via serial data matches the learned VIN sequence. In this mode the radio has full functionality.
- No VIN Mode: The radio has not received or learned a correct VIN sequence. In this mode the radio has limited functionality.
- Theft Detected Mode: The radio has learned a correct VIN sequence and the VIN information received via serial data does NOT match the learned VIN sequence. In this mode the radio may be disabled or have limited functionality. The radio display will indicate that theft protection is active.

Bluetooth® (If Equipped)

Bluetooth® wireless technology is a short-range communications technology intended to replace the cables connecting portable and/or fixed devices while maintaining high levels of security. Only vehicles with steering wheel controls will have Bluetooth® functionality. In order to utilize the vehicle's Bluetooth® system, a Bluetooth® equipped cellular phone is required.

The Bluetooth® antenna is internal to the telematics communication interface control module, radio or human machine interface module and is used to send and receive signals from a Bluetooth® enabled cellular phone. The available features and functions are determined by the software within the device being used and the telematics communication interface control module. The operating range of the signal from the vehicle is approximately 30 feet. Note that the operating range is dependent upon the cellular phone being used and battery level of the phone.

With Bluetooth® technology customers can experience hands-free calling as their Bluetooth® capable cellular phones are wirelessly connected to the vehicle. It will allow customers to place and receive calls using the steering wheel controls and voice recognition. The vehicle audio system will allow you to listen to your call through the vehicle speakers and adjust volume through steering wheel or radio controls.

Not all Bluetooth® cellular phones are guaranteed to work with the vehicle's Bluetooth® system. Based on the cellular phone's service provider and the manufacturer's implementation of Bluetooth®, not all phones support all available Bluetooth® functionality. Bluetooth® enabled cellular phones will be tested for vehicle compatibility and a feature compatibility list will be provided via the GM Bluetooth® website: http://www.gm.com/vc/bluetooth/

Bluetooth® Features Supported

The following is a list of features supported by the Bluetooth® system. Note that not all devices will support all of the listed functions.

- Automatic reconnection – highest priority phone will automatically be connected to vehicle when vehicle ignition is on
- Hands-free dialing- via digits, redial, name tags (phone number saved to a nametag via voice recognition)
- Answering a call
- Ending a call
- Mute a Call
- Rejecting a call – ignore an incoming call
- Call Waiting
- Three-way Calling – initiated from hands-free system
- Send Number During a Call – this is used when calling a menu-driven phone system
- Transfer a Call – transfer call from vehicle to cellular phone and visa versa
- Voice Pass-Thru – allow access to the voice recognition commands on the cellular phone

Auxiliary Audio Input Jack (If equipped)

The infotainment system may have a 3.5mm (1/8 in.) auxiliary audio input jack located in the center console or on the radio faceplate. The auxiliary audio input jack interfaces directly with the radio. When a portable audio playback device is connected to the auxiliary jack, an internal switch detects the connection and the radio will switch to AUX as the audio source. Audio signals from the device are sent to the radio from the auxiliary jack via the left, right, and common audio signal circuits.

- When a device is first connected to the 3.5mm (1/8 in.) input jack the infotainment system automatically switches to that device. If an auxiliary device has already been connected, press the Media or AUX button to select the device.
- Playback of an audio device that is connected to the 3.5mm jack can only be controlled using the controls on the device.
- The volume control on the device may need to be adjusted to ensure sufficient playback volume through the infotainment system.

USB Port (If Equipped)

The infotainment system may have a USB connector located in the center console. The USB connector interfaces directly with the radio. The USB connector supports both USB standards 1.1 and 2.0.

USB Supported Devices:

- USB Flash Sticks (Thumb Drives)
- Portable USB Hard Drives
- Portable Digital Media Players (iPOD®, ZUNE®, etc)

Depending on the USB device, some devices may not be recognized, or some features/functions may not be able to be controlled with the radio controls. USB HUB devices are not supported.

Refer to the owner’s manual for information on USB devices, control, and operation.

OnStar ® (If equipped)

When OnStar is activated, a serial data message is sent to the radio that activates a software program. When the software begins its process, the fade goes to the front, Bass and Treble are set to the mid range, the outputs are mono, and the audio source is OnStar. OnStar takes priority over any other audio source. All of these actions are preset values stored in the radio.

Steering Wheel Controls (If equipped)

Some audio functions are available using the steering wheel controls. The steering wheel controls duplicate the function of the primary controls available on the radio.

For additional information on steering wheel controls, refer to Steering Wheel Controls Description and Operation.

Speed Compensated Volume

With Speed Compensated Volume the audio system will adjust automatically to make up for road and wind noise as you drive, by increasing the volume as vehicle speed increases. To use speed compensated volume, set the volume to the desired level, then select either Low, Medium, or High. To turn SCV off select the Off screen button.

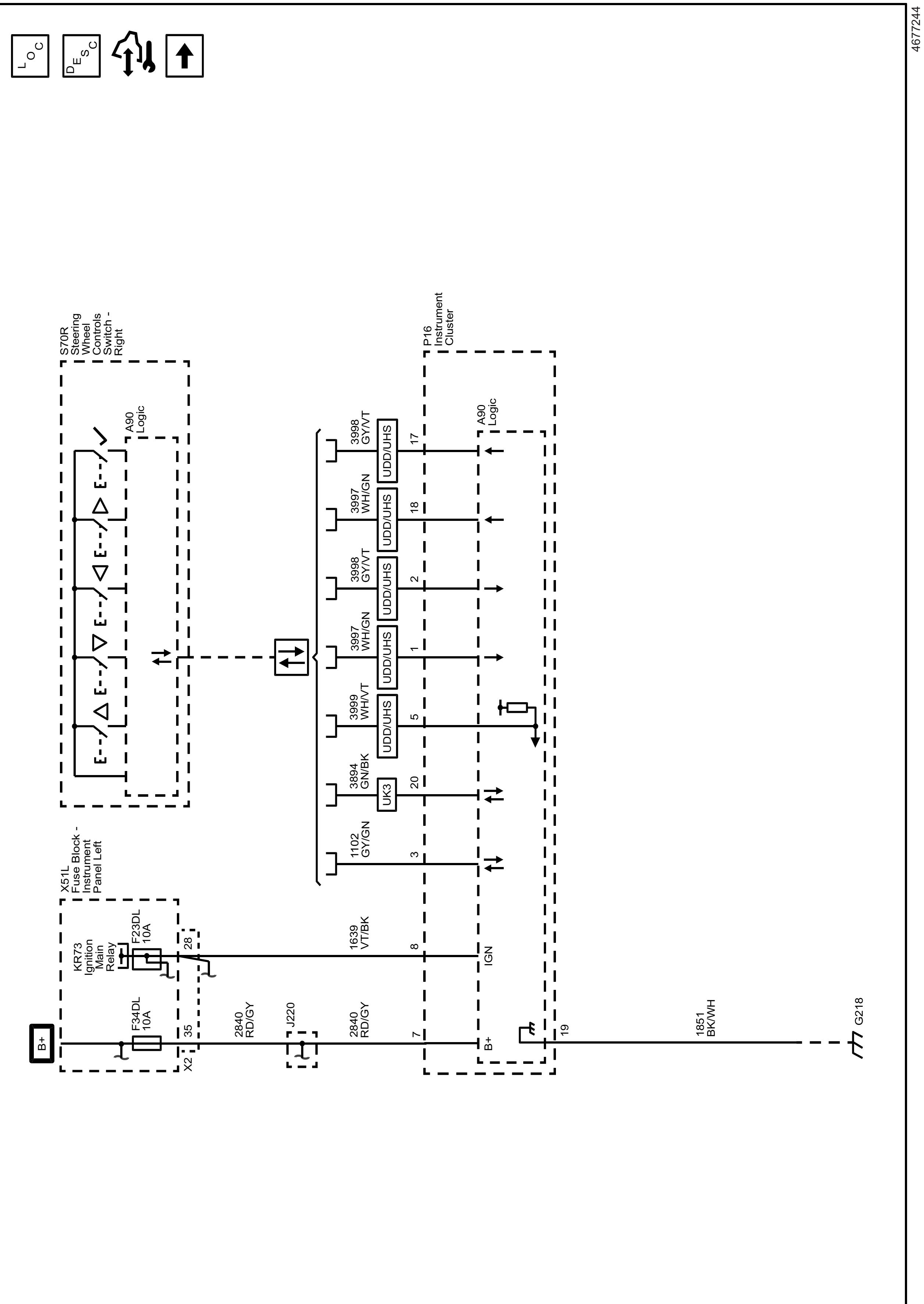
Firmware Over The Air

The Firmware Over The Air feature was designed to reflash software remotely. Remote reflash is an in-vehicle feature that enables the installation of a software package to update the infotainment system without requiring service test equipment to be physically connected to the vehicle. Remote reflash will utilize a long range or short range connection from the host module to a remote IT system.

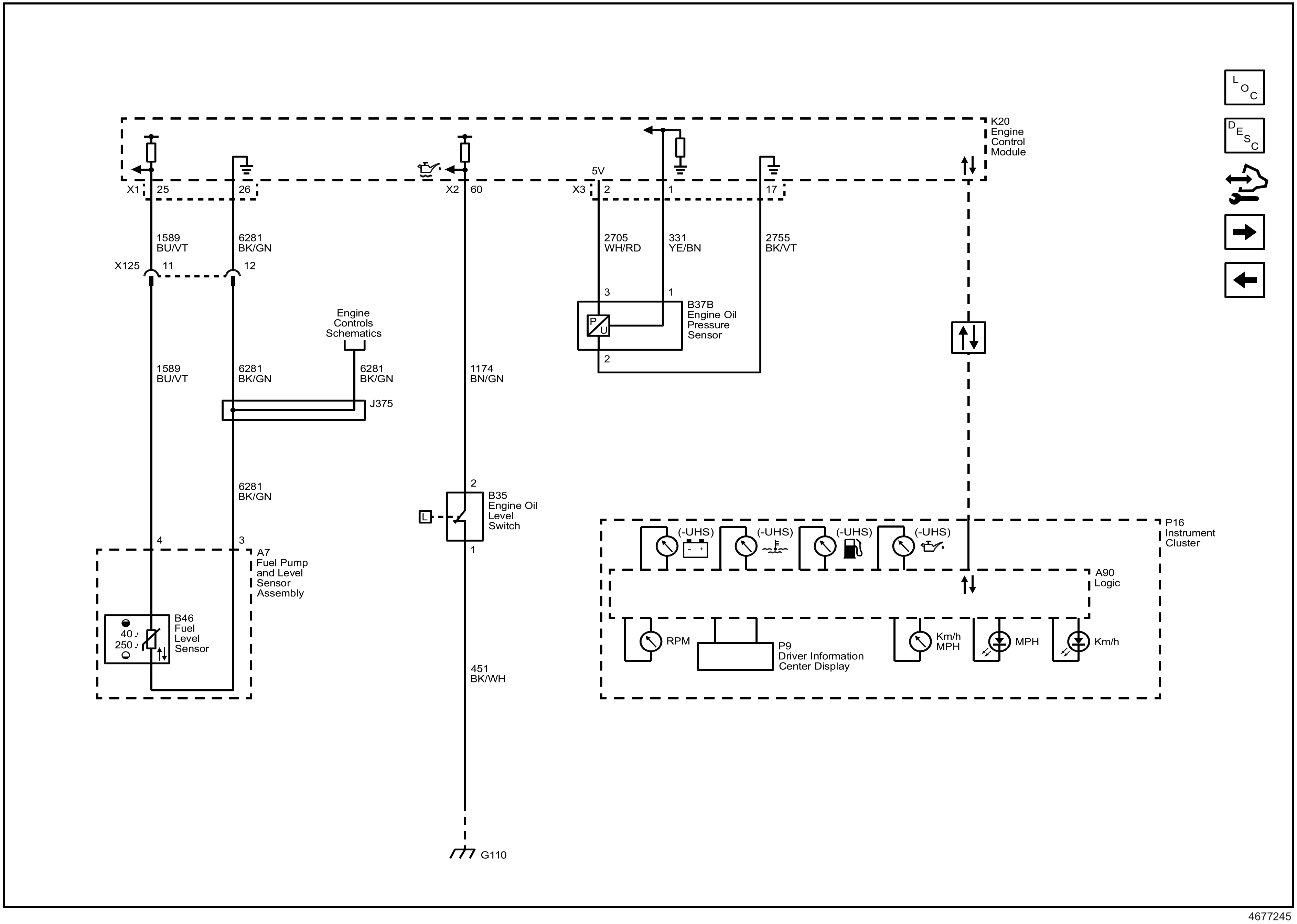
Displays and Gauges

Schematic and Routing Diagrams

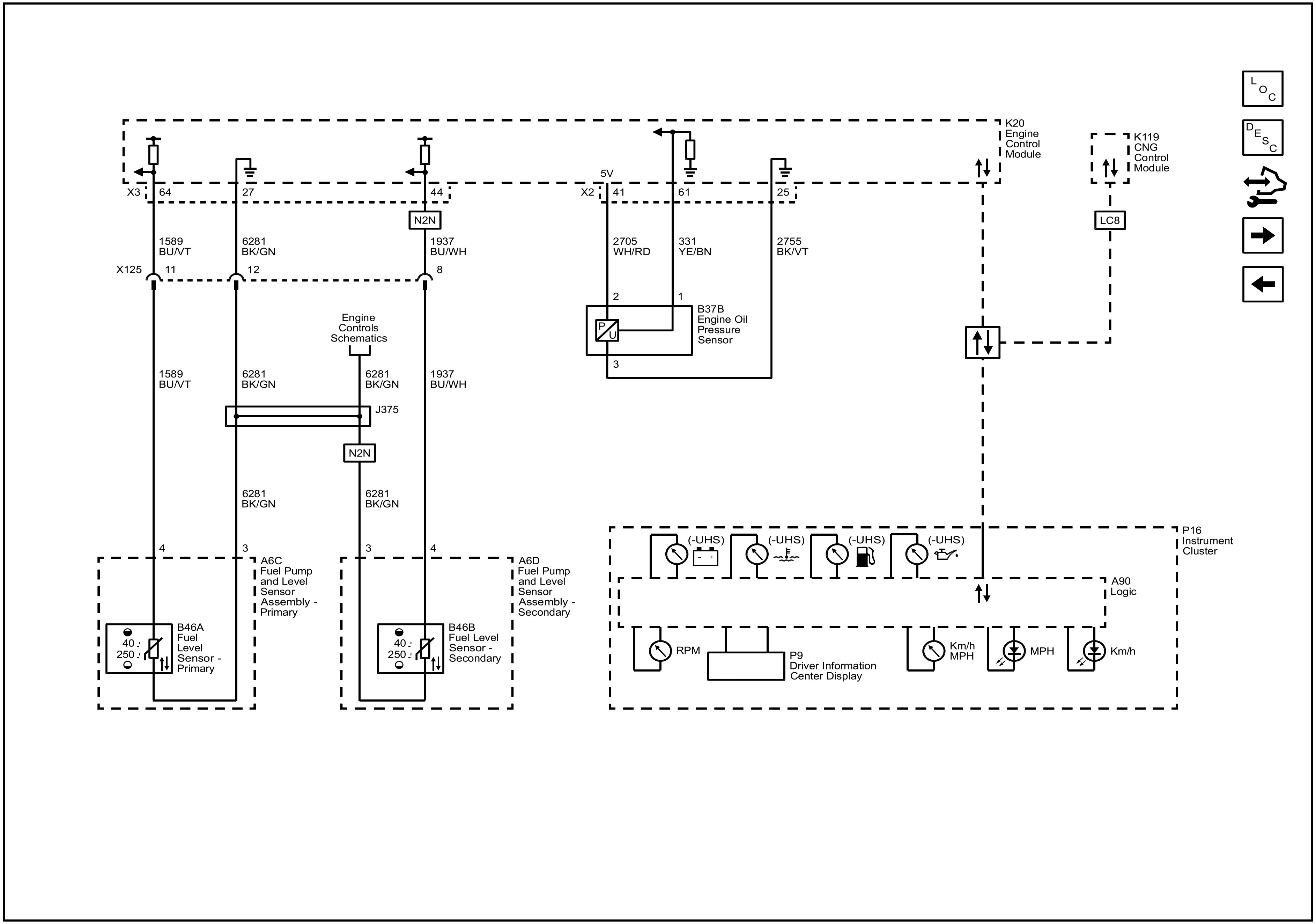
Instrument Cluster Schematics (Power, Ground and Serial Data)


4677244
LOC
DESC
B+
X51L Fuse Block - Instrument Panel Left
F34DL 10A
KR73 Ignition Main Relay
F23DL 10A
28
35
X2
2840 RD/GY
J220
2840 RD/GY
1639 VT/BK
S70R Steering Wheel Controls Switch - Right
A90 Logic
1102 GY/GN
3894 GN/BK
UK3
3999 WH/VT
UDD/UHS
3997 WH/GN
UDD/UHS
3998 GY/VT
UDD/UHS
3997 WH/GN
UDD/UHS
3998 GY/VT
UDD/UHS
7
8
3
20
5
1
2
18
17
P16 Instrument Cluster
A90 Logic
B+
IGN
19
1851 BK/WH
G218

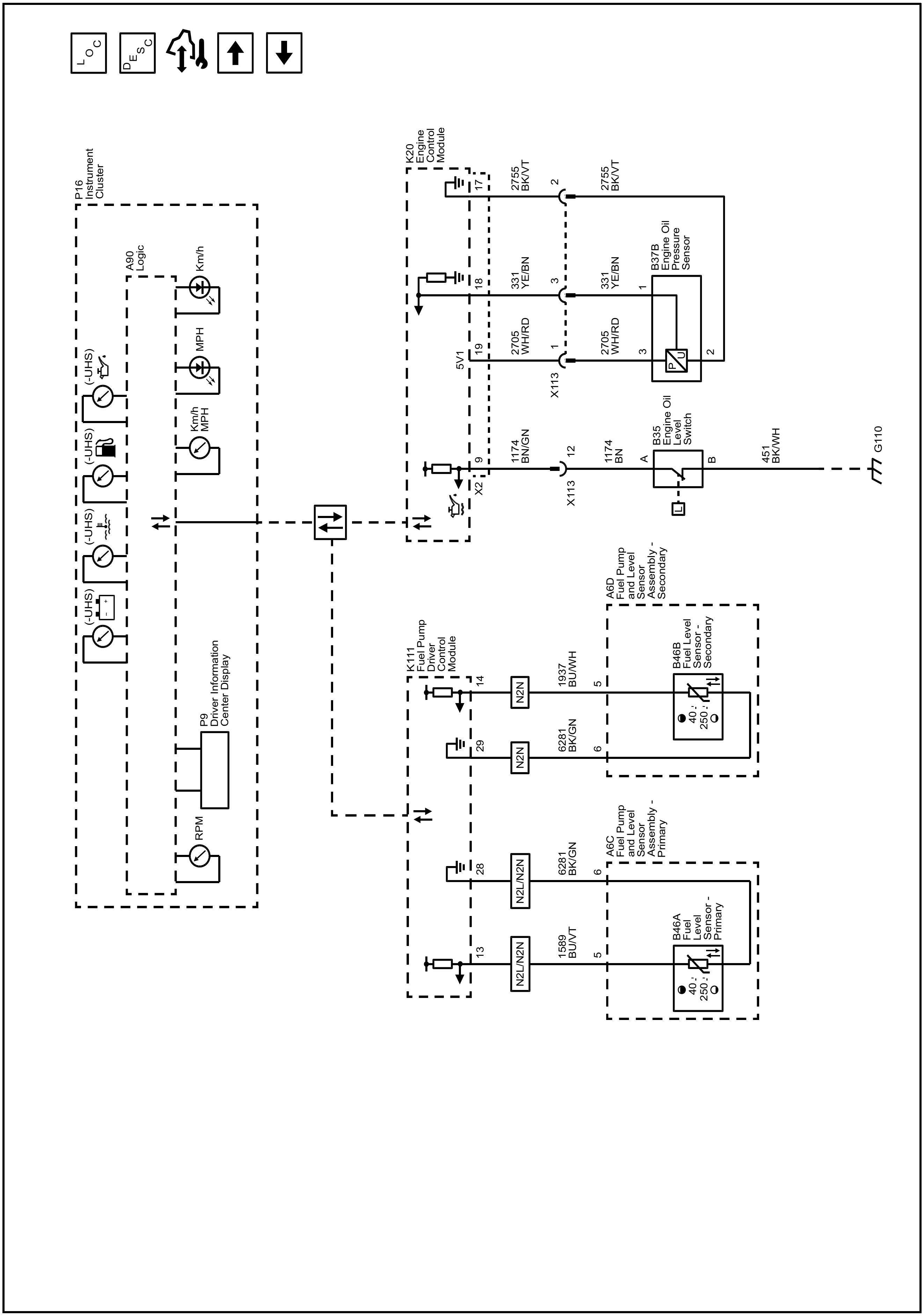
Instrument Cluster Schematics (Gages (1500))


L O C
D E S C
K20
Engine
Control
Module
X1
25
26
X2
60
X3
2
1
17
5V
1589
BU/VT
6281
BK/GN
X125
11
12
2705
WH/RD
331
YE/BN
2755
BK/VT
3
1
B37B
Engine Oil
Pressure
Sensor
P
U
2
Engine
Controls
Schematics
6281
BK/GN
1589
BU/VT
6281
BK/GN
1174
BN/GN
J375
6281
BK/GN
2
B35
Engine Oil
Level
Switch
L
1
4
3
A7
Fuel Pump
and Level
Sensor
Assembly
B46
Fuel
Level
Sensor
40 Ω
250 Ω
451
BK/WH
G110
P16
Instrument
Cluster
(-UHS)
(-UHS)
(-UHS)
(-UHS)
A90
Logic
RPM
P9
Driver Information
Center Display
Km/h
MPH
MPH
Km/h
4677245

Instrument Cluster Schematics (Gages (L96 or LC8))


LOC
DESC
K20 Engine Control Module
K119 CNG Control Module
LC8
X3
64
27
44
X2
5V
41
61
25
N2N
1589 BU/VT
6281 BK/GN
1937 BU/WH
2705 WH/RD
331 YE/BN
2755 BK/VT
X125
11
12
8
2
1
3
B37B Engine Oil Pressure Sensor
P
U
Engine Controls Schematics
J375
4
A6C Fuel Pump and Level Sensor Assembly - Primary
B46A Fuel Level Sensor - Primary
A6D Fuel Pump and Level Sensor Assembly - Secondary
B46B Fuel Level Sensor - Secondary
40 Ω
250 Ω
P16 Instrument Cluster
(-UHS)
A90 Logic
RPM
P9 Driver Information Center Display
Km/h MPH
MPH
Km/h
4677248

Instrument Cluster Schematics (Gages (L5P))


4677249
LOC
DESC
P16
Instrument
Cluster
(-UHS)
(-UHS)
(-UHS)
(-UHS)
A90
Logic
Km/h
MPH
Km/h
MPH
P9
Driver Information
Center Display
RPM
K20
Engine
Control
Module
17
18
19
5V1
9
X2
2755
BK/VT
331
YE/BN
2705
WH/RD
1174
BK/GN
2
3
1
X113
12
X113
2755
BK/VT
331
YE/BN
2705
WH/RD
1174
BN
B37B
Engine Oil
Pressure
Sensor
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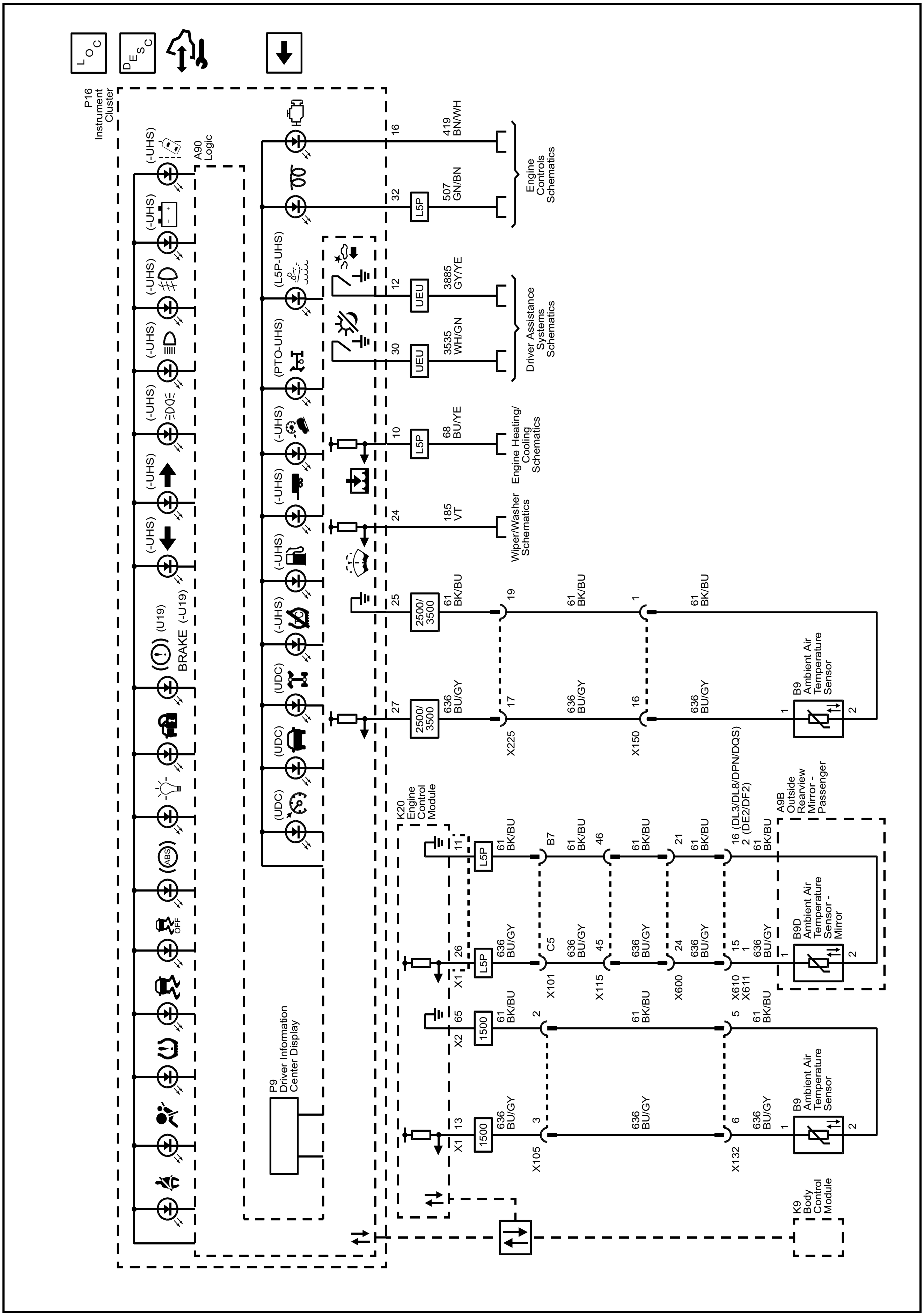
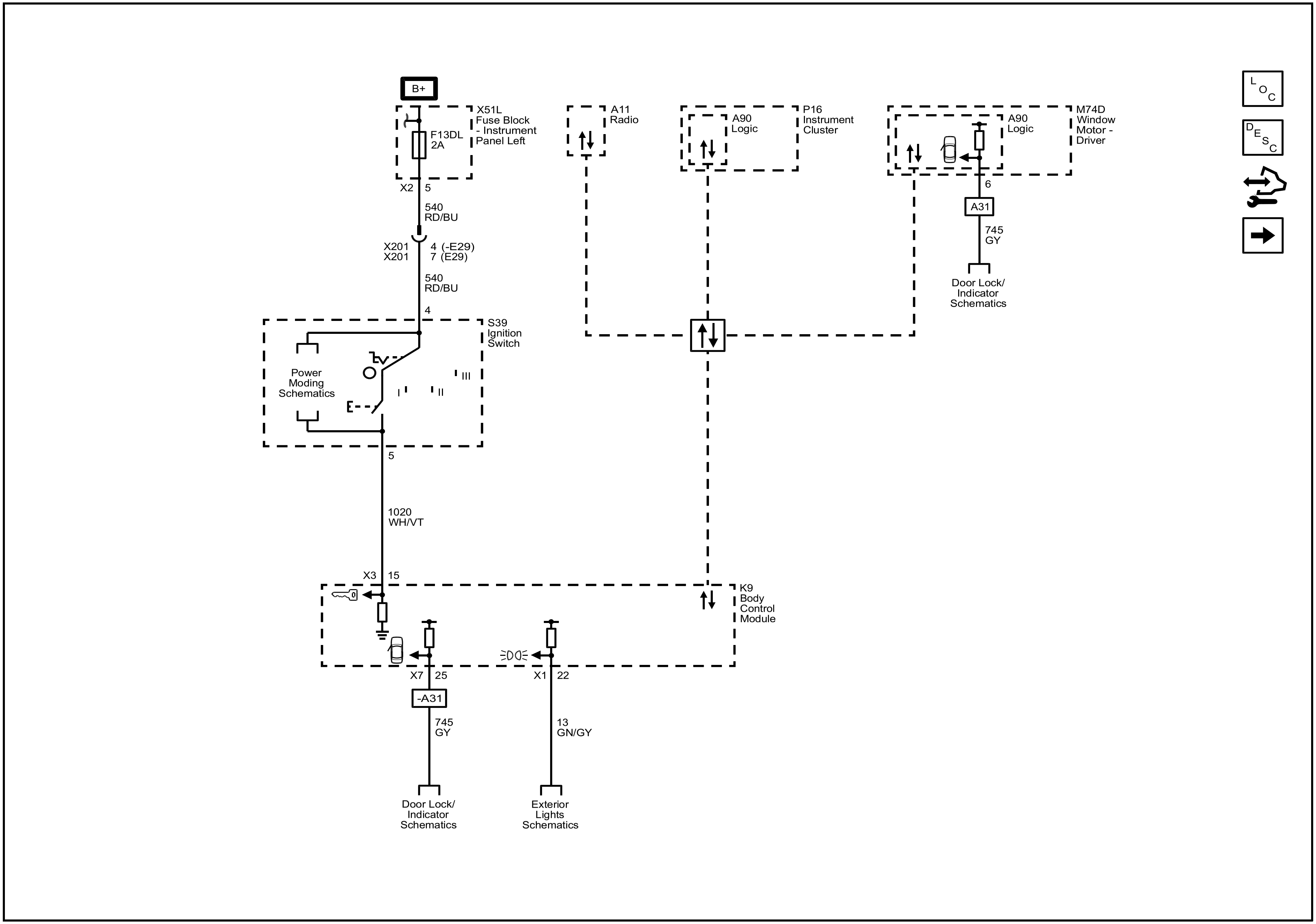
3
2
P
U
B35
Engine Oil
Level
Switch
A
B
L
451
BK/WH
G110
K111
Fuel Pump
Driver
Control
Module
14
29
28
13
N2N
N2N
N2L/N2N
N2L/N2N
1937
BU/WH
6281
BK/GN
6281
BK/GN
1589
BU/VT
5
6
6
5
A6D
Fuel Pump
and Level
Sensor
Assembly -
Secondary
B46B
Fuel Level
Sensor -
Secondary
40 :
250 :
A6C
Fuel Pump
and Level
Sensor
Assembly -
Primary
B46A
Fuel
Level
Sensor -
Primary
40 :
250 :

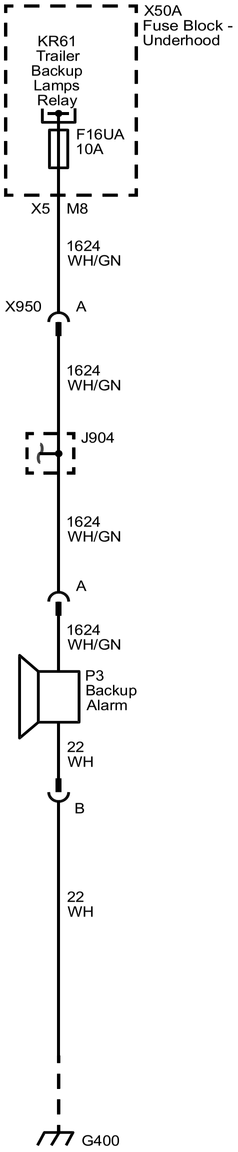
Instrument Cluster Schematics (Indicators and Ambient Temperature)


4677260
P16 Instrument Cluster
A90 Logic
P9 Driver Information Center Display
(-UHS)
(U19)
BRAKE (-U19)
(UDC)
(PTO-UHS)
(L5P-UHS)
K20 Engine Control Module
K9 Body Control Module
16
32
12
30
10
24
25
27
419 BN/WH
507 GN/BN
3885 GY/YE
3535 WH/GN
68 BU/YE
185 VT
61 BK/BU
636 BU/GY
L5P
UEU
2500/3500
1500
Engine Controls Schematics
Driver Assistance Systems Schematics
Engine Heating/Cooling Schematics
Wiper/Washer Schematics
19
17
1
16
X225
X150
B9 Ambient Air Temperature Sensor
2
X1
X2
11
26
65
13
B7
C5
46
45
21
24
16 (DL3/DL8/DPN/DQS)
2 (DE2/DF2)
15
1
X101
X115
X600
X610
X611
A9B Outside Rearview Mirror - Passenger
B9D Ambient Air Temperature Sensor - Mirror
2
3
5
6
X105
X132

Audible Warnings Schematics (Audible Warnings)


L O C
D E S C
B+
X51L
Fuse Block
- Instrument
Panel Left
F13DL
2A
X2 5
540
RD/BU
X201 4 (-E29)
X201 7 (E29)
540
RD/BU
4
S39
Ignition
Switch
Power
Moding
Schematics
I
II
III
5
1020
WH/VT
X3 15
A11
Radio
A90
Logic
P16
Instrument
Cluster
A90
Logic
M74D
Window
Motor -
Driver
6
A31
745
GY
Door Lock/
Indicator
Schematics
K9
Body
Control
Module
X7 25
-A31
745
GY
Door Lock/
Indicator
Schematics
X1 22
13
GN/GY
Exterior
Lights
Schematics
4677262

Audible Warnings Schematics (Backup Alarm (8S3))


X50A
Fuse Block -
Underhood
KR61
Trailer
Backup
Lamps
Relay
F16UA
10A
X5
M8
1624
WH/GN
X950
A
1624
WH/GN
J904
1624
WH/GN
A
1624
WH/GN
P3
Backup
Alarm
22
WH
B
22
WH
G400

4677264

Description and Operation

Audible Warnings Description and Operation

The audible warnings alert the driver of a system concern or a critical vehicle condition. If equipped with an serial data communicating audio amplifier, the audio amplifier generates the audible warnings through the speakers. If not equipped with an audio amplifier, the radio generates the audible warnings through the speakers. The radio or audio amplifier receives audible warning requests via serial data. If the radio or audio amplifier receives multiple audible warning requests, the warning with the highest priority sounds first. Different audible warnings may sound with a different frequency or a different chime pattern, depending on the system or module making the request. The chime volume may be selectable through vehicle personalization.

Audible Warnings or Chimes

The following is a list of common audible warnings or chimes. For additional chimes or complete system description, refer to the appropriate system's Description and Operation or the vehicle owner's manual.

- Driver Seat Belt Reminder – If the vehicle is started and the seat belt is unbuckled, the BCM requests the radio or audio amplifier sound a chime to indicated that the belt is unbuckled. This is accompanied by a flashing driver seat belt indicator on the instrument cluster. If the belt remains unbuckled, the chime cycle may continue multiple times if the vehicle is driven and the indicator will remain on solid.
- Passenger Seat Belt Reminder – If the passenger presence system determines that their is an occupant in the passenger seat and the vehicle is started with the passenger seat belt unbuckled, the BCM requests the radio or audio amplifier sound a chime to indicated that the belt is unbuckled. This is accompanied by a flashing passenger seat belt indicator. If the belt remains unbuckled, the chime cycle may continue multiple times if the vehicle is driven and the indicator will remain on solid. If an object is placed on the passenger seat, the passenger presence system may interpret this as a passenger occupying the seat. Because the passenger seat belt is unbuckled, the passenger seat belt reminder chime will sound. To correct this, remove the object from the passenger seat.
- Exterior Lamps On Warning – If the exterior lamps are left on after the ignition is turned off and the driver door is opened, the BCM will request the radio or audio amplifier sound a chime as an indicator that the exterior lamps are on.
- Electric Parking Brake (if equipped) – If the electric parking brake switch is pressed while the vehicle is in motion, the parking brake control module will request the radio or audio amplifier sound a chime. To release the parking brake, the brake pedal must be pressed when the electric parking brake switch is pressed. If the brake pedal is not pressed, the parking brake control module will request the radio or audio amplifier sound a chime. A message will also appear on the driver information center.
- Delayed Locking – If the keyless entry transmitter is not in the vehicle and the door lock switch is pressed with the driver door open, the BCM will request the radio or audio amplifier sound a chime three times to indicate that the vehicle has entered a delayed locking state. The doors will automatically lock five seconds after the last door is closed.
- Object Detection – The object detection system sends various chime requests to the radio or audio amplifier during normal operation.

Additional Warnings

The following warnings have an associated instrument cluster indicator or driver information center message:

- Turn Signal Indicators – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Vehicle Overspeed Message – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Fuel Level Low Message – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Oil Pressure Indicator – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Tire Pressure Low Indicator – The radio or audio amplifier activates the audible warning as requested by the BCM.
- Antilock Brake Indicator – The radio or audio amplifier activates the audible warning as requested by the electronic brake control module.
- Engine Cooling System Messages – The radio or audio amplifier activates the audible warning as requested by the engine control module.
- Transmission Messages – The radio or audio amplifier activates the audible warning as requested by the transmission control module.

Backup Alarm (with 8S3)

When transmission placed in reverse, the Body Control Module (BCM) activates the KR61 Trailer Backup Lamps Relay which supplies 12V to the reverse lamps and the Backup Alarm simultaneously.

Indicator/Warning Message Description and Operation

INDICATOR LIGHT ON

Refer to the OWNER'S MANUAL for the descriptions and explanations of all indicator lights.

For diagnosis and repair information related to an indicator light refer to the System Diagnosis and the Description of Operation that the message relates to.

MESSAGE DISPLAYED

Refer to the OWNER'S MANUAL for descriptions and explanations of all messages displayed.

For diagnosis and repair information related to a displayed message refer to the System Diagnosis and the Description of Operation that the message relates to.

CHANGE TIMING BELT MESSAGE

The Instrument Cluster monitors the odometer mileage to determine when timing belt (if equipped) replacement may be necessary. After the vehicle has accumulated approximately 100,000 miles (160,000 kilometers), the Instrument Cluster may display the CHANGE TIMING BELT message. After the engine timing belt has been replaced, reset the CHANGE TIMING BELT message by locating and removing the fuses that supply power to the Instrument Cluster for two minutes.

BRAKES OVERHEATED

The Electronic Brake Control Module monitors brake usage and compares it to an internal thermal model to determine if the brakes could become overheated. If the Electronic Brake Control Module determines the brakes pads have exceeded a desirable temperature based on the thermal model, it sends a serial data message to the Instrument Cluster to display the BRAKES OVERHEATED message. The message remains displayed until the estimated temperature returns to a desirable range.

Transmission Shift Lever Position Indicator

The Transmission Shift Lever Position Indicator (if equipped) is located on the center console and indicates the current transmission shift lever position. The Transmission Shift Lever Position Indicator receives power and ground and is controlled by the Body Control Module (BCM) via serial data. The Transmission Control Module determines transmission shift lever position based on signals from the Transmission Internal Mode Switch and sends the shift lever position information to the BCM via serial data.

Instrument Cluster Description and Operation

Instrument Cluster (with RPO UDC)

The instrument cluster is a multifunction module that provides the vehicle operator with information that is critical to vehicle operation, such as vehicle speed, engine RPM, oil pressure, battery voltage, fuel level, and coolant temperature, using analog gauges. The instrument cluster also provides the operator with operational warnings and message through various indicators and the driver information center. The driver information center is a one color multifunction display that is located in the instrument cluster. The driver information center has several screens that can be scrolled through by twisting the trip reset stem.

Instrument Cluster (with RPO UDD)

The instrument cluster is a multifunction module that provides the vehicle operator with information that is critical to vehicle operation, such as vehicle speed, engine RPM, oil pressure, battery voltage, fuel level, and coolant temperature, using analog gauges. The instrument cluster also provides the operator with operational warnings and message through various indicators and the driver information center. The driver information center is a full color multifunction display that is located in the instrument cluster. The driver information center is also tightly integrated with the vehicle’s infotainment system and is highly reconfigurable.

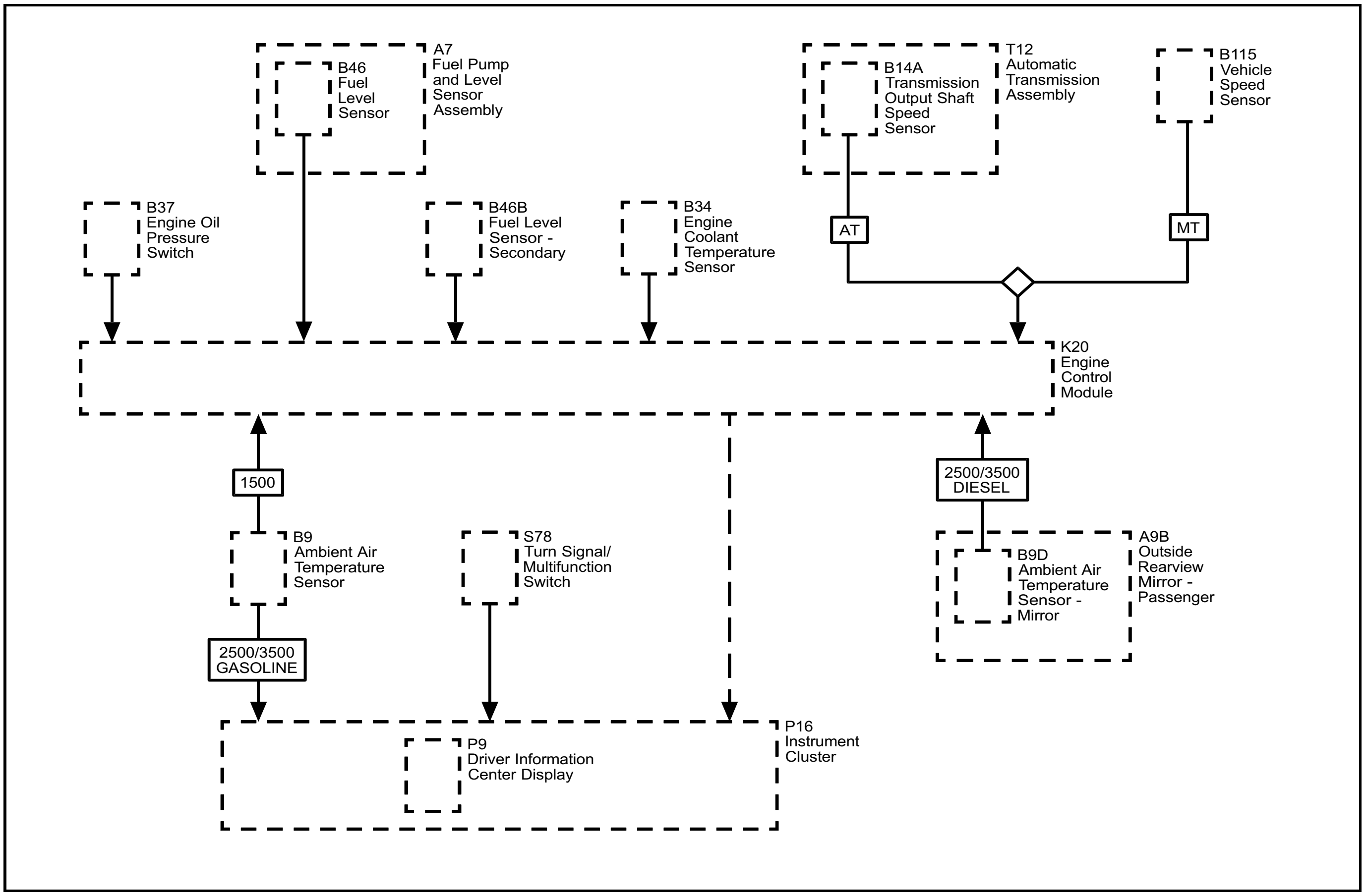
Instrument Cluster (with RPO UHS)

The instrument cluster is a multifunction module that provides the vehicle operator with information such as vehicle speed and engine RPM using analog gauges. Oil pressure, battery voltage, fuel level, and coolant temperature can also be displayed using an interactive LCD display. The instrument cluster is highly reconfigurable, with four different themes available for selection. The instrument cluster also provides the operator with operational warnings and message through various indicators and the driver information center. Because the instrument cluster is an LCD display, driver information center elements are located in various zones of the display, depending on how the instrument panel is configured.

Instrument Cluster (with RPO UDV)

The instrument cluster is a multifunction module that provides the vehicle operator with information that is critical to vehicle operation, such as vehicle speed, engine RPM, and coolant temperature, using an interactive LCD display. The instrument cluster is highly reconfigurable, with four different themes available for selection. The instrument cluster also provides the operator with operational warnings and message through various indicators and the driver information center. Because the instrument cluster is an LCD display, driver information center elements are located in various zones of the display, depending on how the instrument panel is configured.

Displays and Gauges Block Diagram


A7
Fuel Pump and Level Sensor Assembly
B46 Fuel Level Sensor
T12 Automatic Transmission Assembly
B14A Transmission Output Shaft Speed Sensor
B115 Vehicle Speed Sensor
B37 Engine Oil Pressure Switch
B46B Fuel Level Sensor - Secondary
B34 Engine Coolant Temperature Sensor
AT
MT
K20 Engine Control Module
1500
2500/3500 DIESEL
B9 Ambient Air Temperature Sensor
S78 Turn Signal/ Multifunction Switch
A9B Outside Rearview Mirror - Passenger
B9D Ambient Air Temperature Sensor - Mirror
2500/3500 GASOLINE
P16 Instrument Cluster
P9 Driver Information Center Display

4068980

Indicators and Warning Messages

Refer to *Indicator/Warning Message Description and Operation on page 3-42*.

Engine Coolant Temperature Gauge

The instrument cluster displays the engine coolant temperature as determined by the engine control module (ECM). The ECM sends the engine coolant temperature information via serial data to the body control module (BCM). The BCM then sends the information via a serial data to the instrument cluster to display the engine coolant temperature.

Fuel Gauge (Gasoline and Diesel)

The instrument cluster displays the fuel level based on the information from the ECM. The ECM converts the data from the fuel level sensors to a fuel level signal. The ECM sends the fuel level signal via serial data to the BCM. The BCM then sends the information via serial data to the instrument cluster to display the fuel level. If the fuel level falls under 11% the instrument cluster will illuminate the low fuel level indicator. The fuel gauge defaults to empty if:

- The ECM detects a malfunction in the fuel level sensor circuit.
- The BCM detects a loss of serial data communications with the ECM.
- The instrument cluster detects a loss of serial data communications with the BCM.

Speedometer

The instrument cluster displays the vehicle speed based on the information from the ECM. The ECM sends the vehicle speed information via serial data to the BCM. The BCM then sends the vehicle speed information via serial data to the instrument cluster to display the vehicle speed.

Odometer

The instrument cluster displays the vehicle odometer in the driver information center. The ECM send a distance rolling count message via serial data to the body control module (BCM). The BCM uses this information to calculate the vehicle odometer. This odometer value is then sent to the instrument cluster. The instrument cluster does not calculate the odometer.

The odometer value is stored in multiple modules. The instrument cluster is a secondary storage module for the odometer, while the BCM is the primary storage and accumulator.

In addition to storing the odometer value for the vehicle, the instrument cluster and the BCM store the VIN. Software checks are performed to ensure these modules, and their stored odometer information, can not be move or transferred between different vehicles.

Tachometer

The instrument cluster displays the engine speed based on the information from the ECM. The ECM converts the data from the crankshaft position sensor to an engine revolution signal. The ECM sends the engine speed information via serial data to the BCM. The BCM then sends the information via serial data to the instrument cluster to display the engine speed.

Compass

The vehicle compass information is gather through the compass module or vehicle communication interface module (VCIM). The compass module or VCIM determines vehicle direction and communicates this with the BCM through serial data. The BCM sends the compass information to the instrument cluster via serial data, where it is displayed.

Outside Air Temperature (1500 series)

The Ambient Air Temperature Sensor is located behind the grille and varies it's resistance with temperature. The Engine Control Module (ECM) reads the resistance value to determine temperature. The time of and rate of the temperature update is based on an algorithm in the ECM software. Factors such as, last reading, current reading, length of time vehicle is been off/on, power mode, vehicle speed, driven distance, and sensor location are all considered by the ECM to know when to update the displayed temperature. For example, if the sensor is located near the engine compartment, and the vehicle has been turned off for only 10 minutes then restarted, the ECM will wait until the vehicle is driven to get more accurate air flow across the sensor before it updates the display.

Outside Air Temperature (2500/3500 series with Gasoline Engine)

The Ambient Air Temperature Sensor is located behind the grille and varies it's resistance with temperature. The Instrument Cluster reads the resistance value to determine temperature. The time of and rate of the temperature update is based on an algorithm in the Instrument Cluster software. Factors such as, last reading, current reading, length of time vehicle is been off/on, power mode, vehicle speed, driven distance, and sensor location are all considered by the Instrument Cluster to know when to update the displayed temperature on the Info Display Module. For example, if the sensor is located near the engine compartment, and the vehicle has been turned off for only 10 minutes then restarted, the Instrument Cluster will wait until the vehicle is driven to get more accurate air flow across the sensor before it updates the display.

Outside Air Temperature (2500/3500 series with Diesel Engine)

The Ambient Air Temperature Sensor is located in the Passenger Outside Rearview Mirror and varies it's resistance with temperature. The Engine Control Module (ECM) reads the resistance value to determine temperature. The time of and rate of the temperature update is based on an algorithm in the Engine Control Module (ECM) software. Factors such as, last reading, current reading, length of time vehicle is been off/on, power mode, vehicle speed, driven distance, and sensor location are all considered by the Engine Control Module (ECM) to know when to update the displayed temperature on the Info Display Module.

2500/3500 series trucks with diesel engines are also equipped with an Ambient Air Temperature Sensor located behind the grille. This sensor is not used for any purpose and does not affect engine control operations or outside air temperature display functions in any way.

Driver Information Center Display (with RPO UDD)

The driver information center is located in the lower middle portion of the instrument cluster, between the speedometer and the tachometer. The driver information center displays information about the vehicle and allows the operator to access applications. It also displays warning messages if a system problem is detected.

The driver information center is made up of three zones. The left zone is a list of the applications that can be displayed. The right zone contains choices to customize what information is displayed for the respective application chosen. In the middle is the interactive application display zone. The application display zone allows access to the navigation application, audio application, phone application, or settings applications. The information display zone contains multiple pages that display vehicle information. The compass and PRNDL are displayed at all times in the lower portion of the display zone.

The driver information center can also be configured with several different themes. Changing the theme is accomplished using the infotainment system faceplate settings page. The chosen theme is used for both the faceplate and the driver information center displays.

Instrument Cluster Configuration (with RPO UHS, UDV)

The instrument cluster is highly interactive and reconfigurable. The operator can select from four different display configures and each of these configuration may contain one, two, or three separate display zones. Regardless of which configuration is selected, the vehicle odometer and PRNDL are always displayed in the lower left and lower right corners of the display.

The different display configurations are:

- Simple – The most basic of the available configurations, the Simple configuration includes four static information display zones and one interactive information display zone. The infotainment display zone is located on the left side of the display and displays phone, turn-by-turn navigation, and audio information. The speedometer and compass are located in the upper middle of the display. On the right side of the display is a graphical representation of the fuel level and fuel range.

  Below the speedometer, in the lower middle of the display, is the interactive information display zone. The information display zone contains multiple pages that can be scrolled through and selected using the steering wheel mounted driver information center switch.

- Performance – The Performance configuration contains three static information zones, one interactive information display zone, and one interactive application display zone. The speedometer and tachometer/fuel level gauge are located on the left and right of the display. In between the speedometer and tachometer is a static information display zone that displays current information while the operator scrolls through other pages in the interactive application display zone.

  In the middle of the speedometer is an interactive information display zone. This display zone has a limited number of selection and will only display a digital speedometer, a navigation map, a settings page with sub-menus, or a blank page.

  Below the tachometer and extending into the lower middle of the display is an interactive application display zone. The application display zone allows access to the navigation application, audio application, phone application, settings application, or information application. Unlike the information display zone that is located within the speedometer, the information application is fully featured and allows access to all available information pages.
- Balanced – The Balanced configuration contains three static information zones, two interactive information display zones, and one interactive application display zone. The tachometer is located on the left side of the display, the speedometer in the middle, and the coolant temperature/fuel level gauge on the right.

  Located in the tachometer is an interactive information display zone.

  In the speedometer is an interactive information display zone. This display zone has a limited number of selection and will only display a digital speedometer, a navigation map, a settings page with sub-menus, or a blank page.

  An interactive application display zone is located in the coolant temperature/fuel level gauge. The application display zone allows access to the navigation application, audio application, phone application, or settings application.
- Enhanced – The Enhanced configuration contains four static information zones, two interactive information display zones, and one interactive application display zone. The speedometer in the upper middle of the display, a navigation map or compass in located on the upper left, and a fuel level gauge and fuel range display on the right.

  Located on the left and right lower portion of the display are interactive information display zones.

  An interactive application display zone is located in the middle of the display. The application display zone allows access to the navigation application, audio application, phone application, or settings application.

Image Display Cameras

Schematic and Routing Diagrams

Image Display Camera Schematics (Rearview Camera (UVC with IOB))

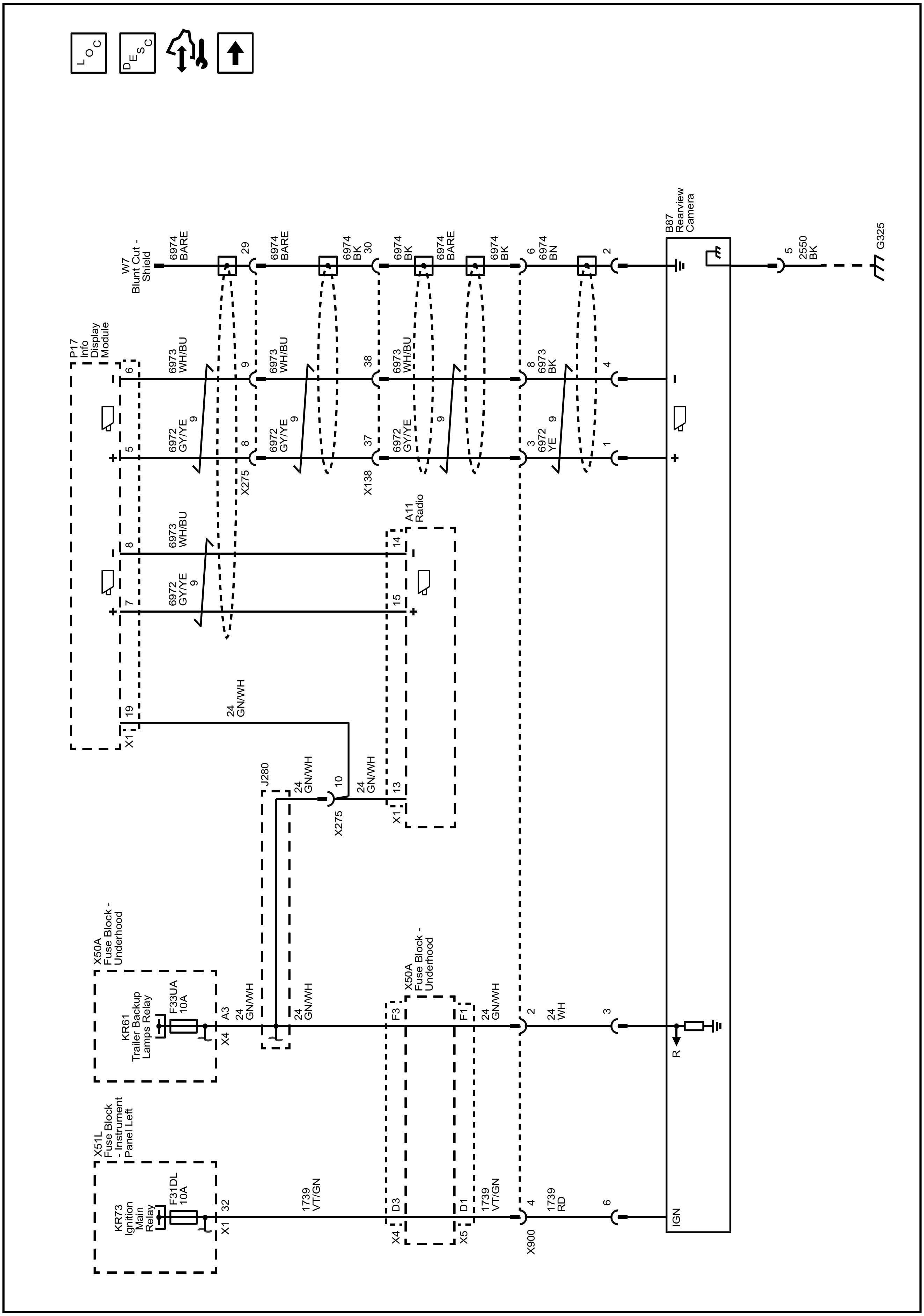
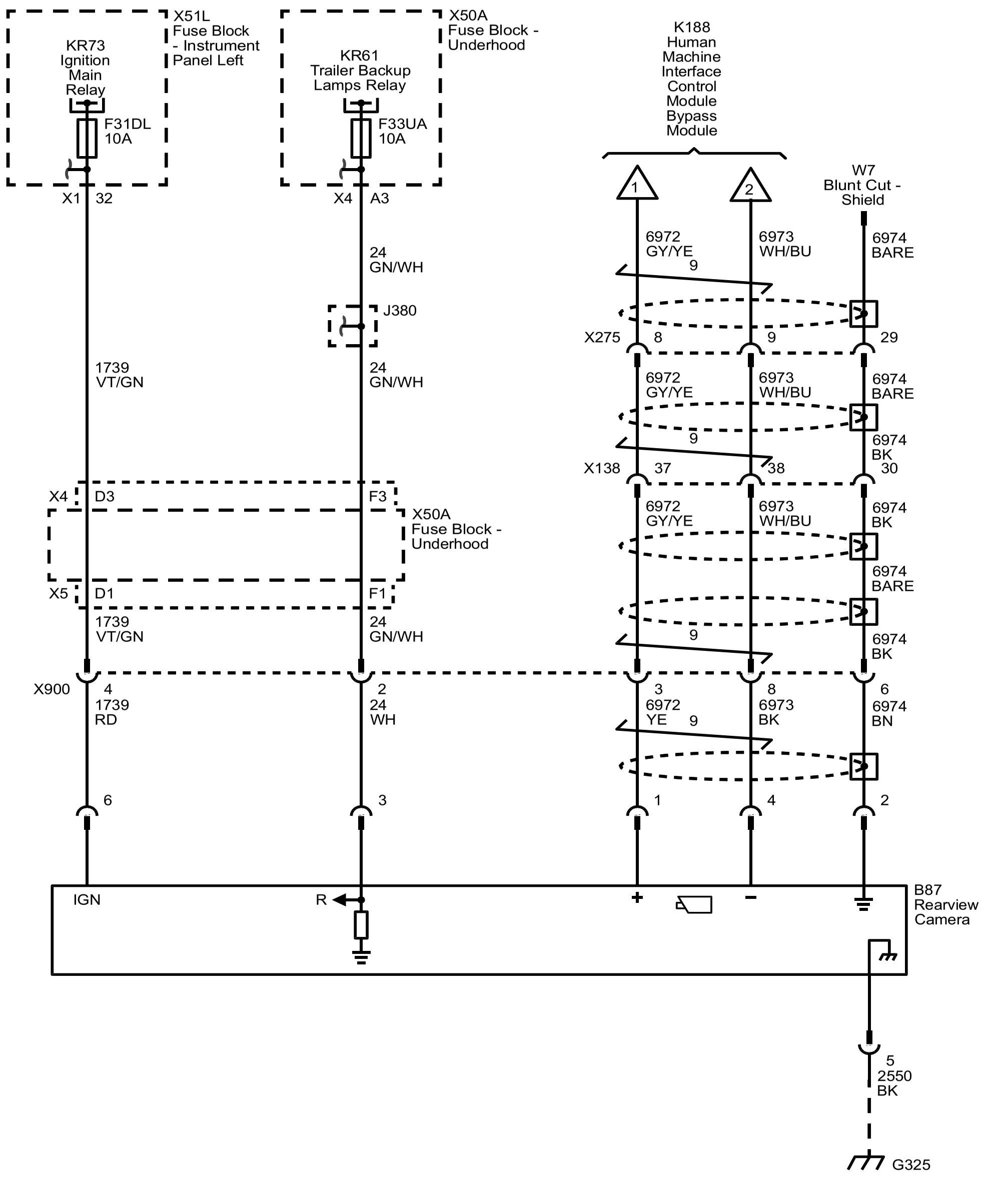
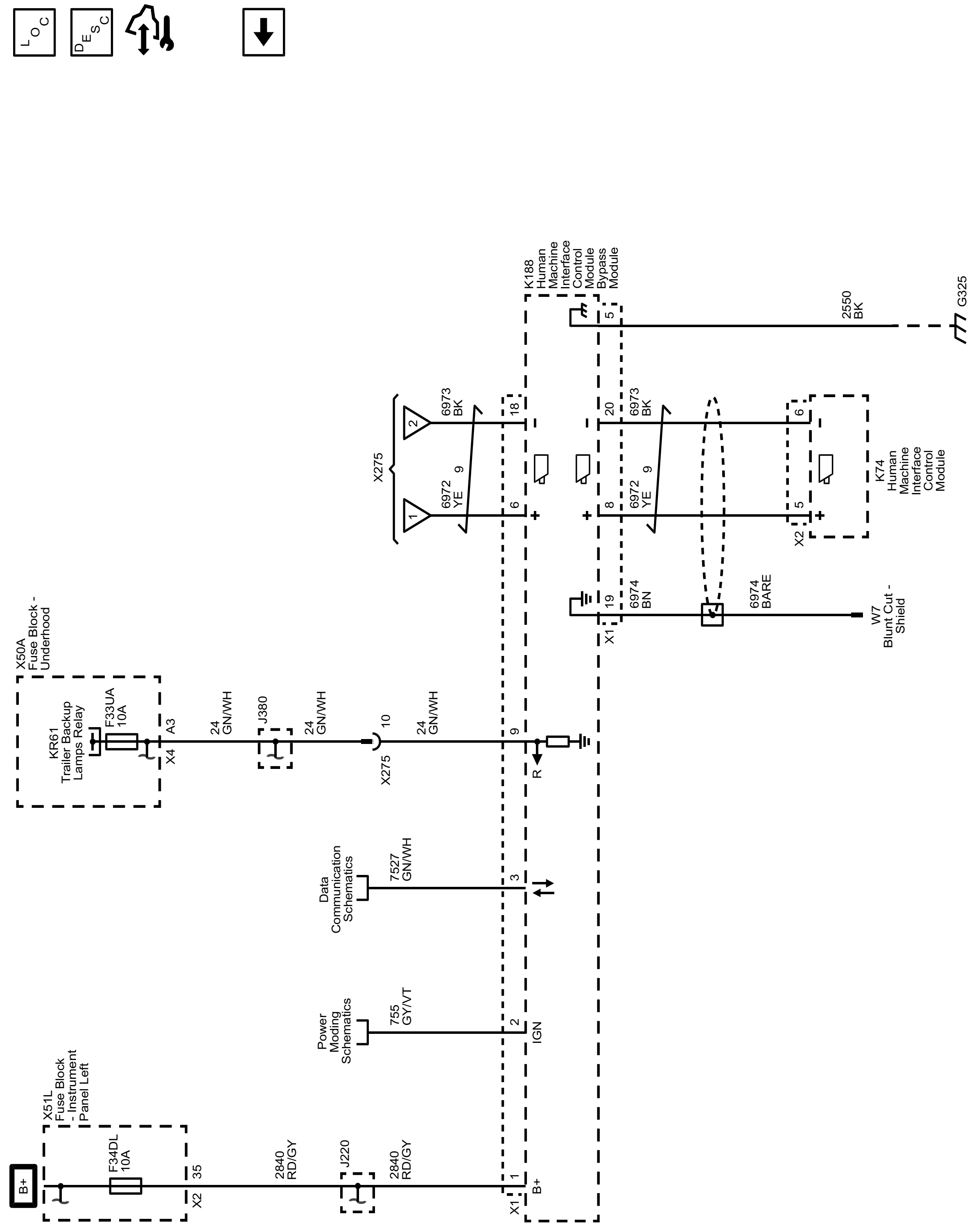

4772022
W7 Blunt Cut - Shield
6974 BARE
29
6974 BARE
6974 BK
30
6974 BK
6974 BARE
6974 BK
6
6974 BN
2
B87 Rearview Camera
5
2550 BK
G325
P17 Info Display Module
6
6973 WH/BU
9
6973 WH/BU
38
6973 WH/BU
8
6973 BK
4
5
6972 GY/YE
9
8
6972 GY/YE
37
6972 GY/YE
3
6972 YE
1
X275
X138
A11 Radio
8
6973 WH/BU
14
7
6972 GY/YE
15
19
X1
24 GN/WH
J280
24 GN/WH
10
24 GN/WH
13
X1
X275
X50A Fuse Block - Underhood
KR61 Trailer Backup Lamps Relay
F33UA 10A
A3
X4
24 GN/WH
24 GN/WH
X50A Fuse Block - Underhood
F3
F1
24 GN/WH
2
24 WH
3
R
X51L Fuse Block - Instrument Panel Left
KR73 Ignition Main Relay
F31DL 10A
32
X1
1739 VT/GN
D3
D1
X4
X5
1739 VT/GN
4
1739 RD
6
X900
IGN

Image Display Camera Schematics (Rearview Camera (UVC with IO5 or IO6) (1 of 2))


X51L Fuse Block - Instrument Panel Left
KR73 Ignition Main Relay
F31DL 10A
X1 32
1739 VT/GN
X50A Fuse Block - Underhood
KR61 Trailer Backup Lamps Relay
F33UA 10A
X4 A3
24 GN/WH
J380
24 GN/WH
X4 D3
F3
X50A Fuse Block - Underhood
X5 D1
F1
1739 VT/GN
24 GN/WH
X900
4 1739 RD
2 24 WH
6
3
K188 Human Machine Interface Control Module Bypass Module
1
2
W7 Blunt Cut - Shield
6972 GY/YE
6973 WH/BU
6974 BARE
9
X275 8
9
29
6972 GY/YE
6973 WH/BU
6974 BARE
9
6974 BK 30
X138 37
38
6972 GY/YE
6973 WH/BU
6974 BK
6974 BARE
9
6974 BK
3 6972 YE
9
8 6973 BK
6 6974 BN
1
4
2
IGN
R
+
-
B87 Rearview Camera
5 2550 BK
G325

4772024

Image Display Camera Schematics (Rearview Camera (UVC with IO5 or IO6) (2 of 2))



L O C
D E S C
B+
X51L Fuse Block - Instrument Panel Left
F34DL 10A
X2
35
2840 RD/GY
J220
2840 RD/GY
X1
1
B+
Power Moding Schematics
755 GY/VT
2
IGN
Data Communication Schematics
7527 GN/WH
3
X50A Fuse Block - Underhood
KR61 Trailer Backup Lamps Relay
F33UA 10A
A3
X4
24 GN/WH
J380
24 GN/WH
10
X275
24 GN/WH
9
R
X275
1
2
6972 YE
6973 BK
9
6
18
K188 Human Machine Interface Control Module Bypass Module
5
2550 BK
G325
20
8
6973 BK
6972 YE
9
19
6974 BN
6974 BARE
W7 Blunt Cut - Shield
X2
5
6
K74 Human Machine Interface Control Module
4772027

Description and Operation

Rear Vision Camera Description and Operation (with IOB/IOR/IO3)

Rear Vision Camera System Operation

The rear vision camera system consists of a video camera located at the rear of the vehicle and the Rado.

When the transmission is placed into REVERSE, a signal indicates to the Radio that the vehicle is in reverse and image display is requested. The rear vision camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rear vision camera to the radio. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and a degraded video image. The shield is provided a ground path by the rear vision camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Info Display Module as an indicator to the customer that a problem exists that requires service.

Rear Vision Camera Description and Operation (with IO5/IO6)

Rear Vision Camera System Operation

When the transmission is placed into R, a 12 V signal is sent to the Rearview Camera indicating that camera operation is requested. Ignition voltage and ground are supplied to the Rearview Camera. The Rearview Camera sends video image to the K188 Human Machine Interface Control Module Bypass Module through a video signal + and a video signal − circuit.

The K188 Human Machine Interface Control Module Bypass Module passes the video image to K74 Human Machine Interface Control Module via video signal + and a video signal − circuits. The K188 Human Machine Interface Control Module Bypass Module is used to ensure the K74 Human Machine Interface Control Module produces a quality rear vision camera image to be displayed on the P17 Info Display Module when the vehicle is placed in reverse gear. In the event the K188 Human Machine Interface Control Module Bypass Module detects an issue with the camera image generated by the K74 Human Machine Interface Control Module, such as a black, solid color, frozen, or image other than the camera image, the K188 Human Machine Interface Control Module Bypass Module will assume control of the image to the P17 Info Display Module and displays a raw camera image with no park assist projection lines or object detection symbols for the entire reverse cycle.

The K188 Human Machine Interface Control Module Bypass Module is part of the video signal + and a video signal − circuits path from the B87 Rearview Camera to the K74 Human Machine Interface Control Module as well as the digital LVDS path (USB cable) between the K74 Human Machine Interface Control Module and P17 Info Display Module and needs to be active for either signal to be received by these modules. The K188 Human Machine Interface Control Module Bypass Module is not connected to serial data and uses the reverse lamp voltage input to determine the vehicle gear state.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Info Display Module as an indicator to the customer that a problem exists that requires service.

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Section 4

Engine/Propulsion

12 V Starting and Charging 4-3
  Schematic and Routing Diagrams 4-3
    Starting and Charging Schematics 4-4
    Auxiliary Battery Schematics 4-11
  Description and Operation 4-12
    Battery Description and Operation 4-12
    Charging System Description and Operation . . . 4-12
    Electrical Power Management Description and Operation (Gasoline) 4-15
    Electrical Power Management Description and Operation (Diesel) 4-16
    Starting System Description and Operation 4-18

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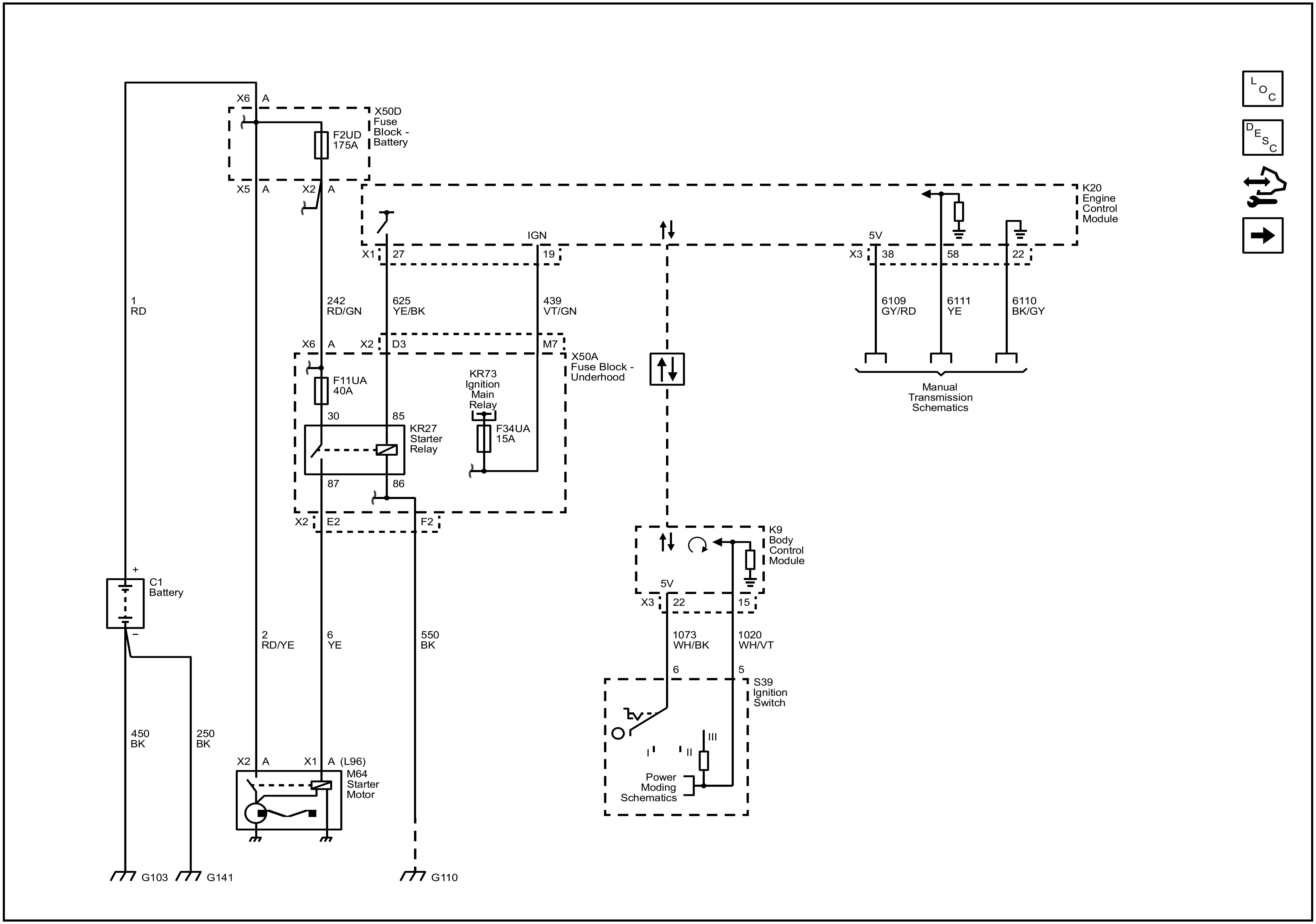
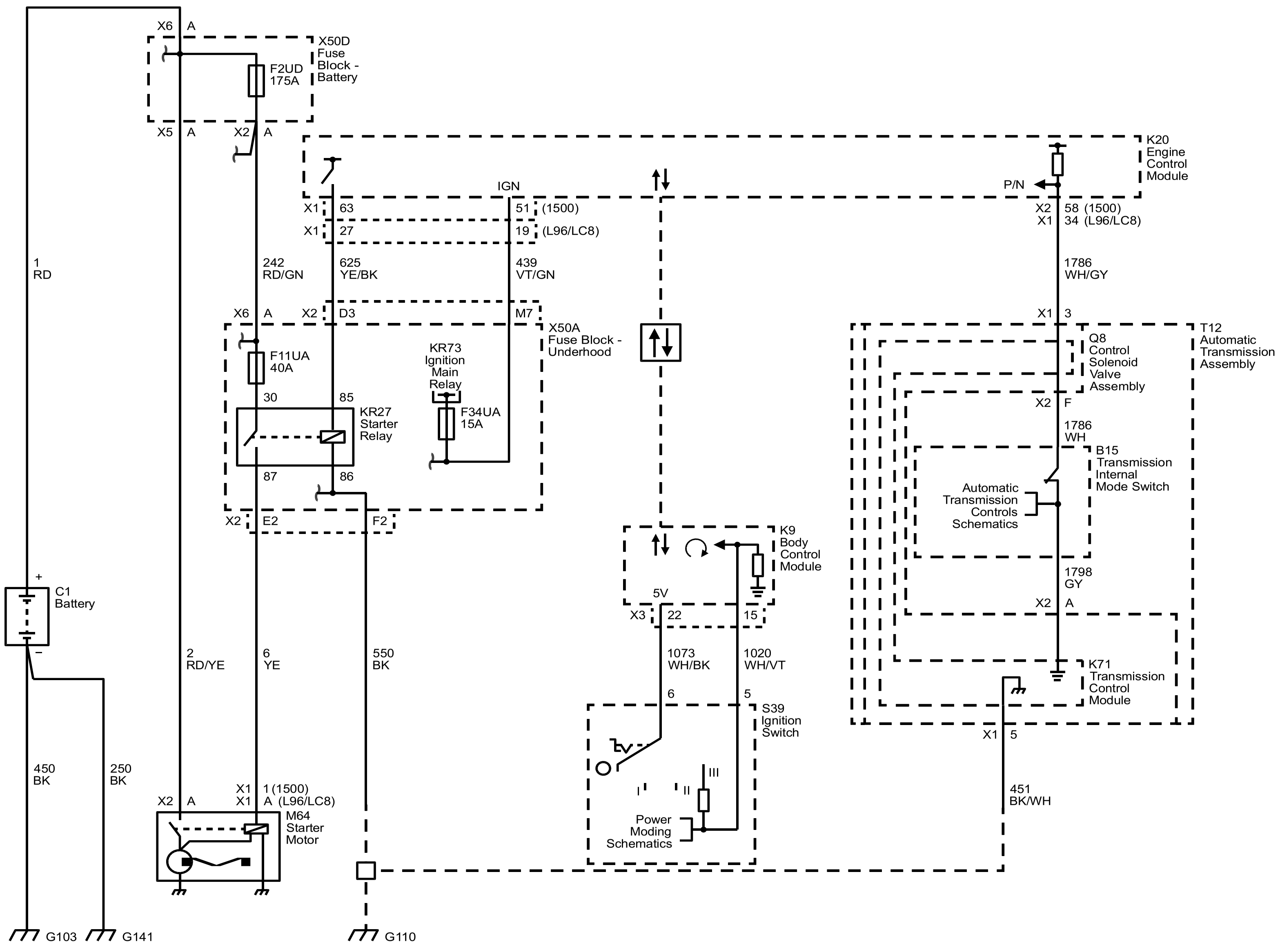
12 V Starting and Charging

Schematic and Routing Diagrams

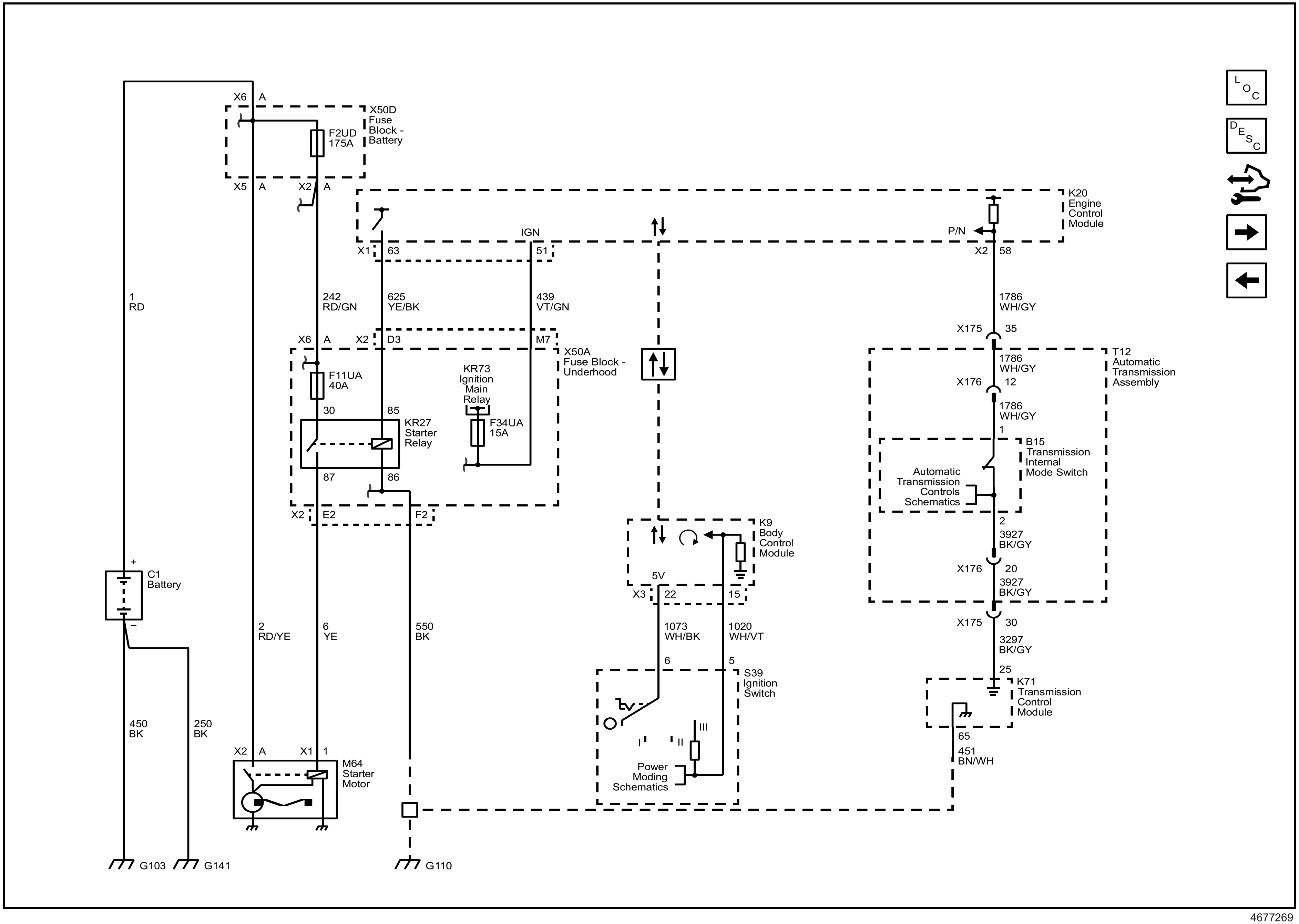
Starting and Charging Schematics (Starting - Manual Transmission (M2P or MQ7))


X6
A
X50D
Fuse
Block -
Battery
F2UD
175A
X5
A
X2
A
K20
Engine
Control
Module
IGN
X1
27
19
5V
X3
38
58
22
1
RD
242
RD/GN
625
YE/BK
439
VT/GN
6109
GY/RD
6111
YE
6110
BK/GY
Manual
Transmission
Schematics
X6
A
X2
D3
M7
X50A
Fuse Block -
Underhood
F11UA
40A
KR73
Ignition
Main
Relay
30
85
KR27
Starter
Relay
F34UA
15A
87
86
X2
E2
F2
K9
Body
Control
Module
5V
X3
22
15
+
C1
Battery
−
2
RD/YE
6
YE
550
BK
1073
WH/BK
1020
WH/VT
6
5
S39
Ignition
Switch
I
II
III
Power
Moding
Schematics
450
BK
250
BK
X2
A
X1
A (L96)
M64
Starter
Motor
G103
G141
G110
4677267

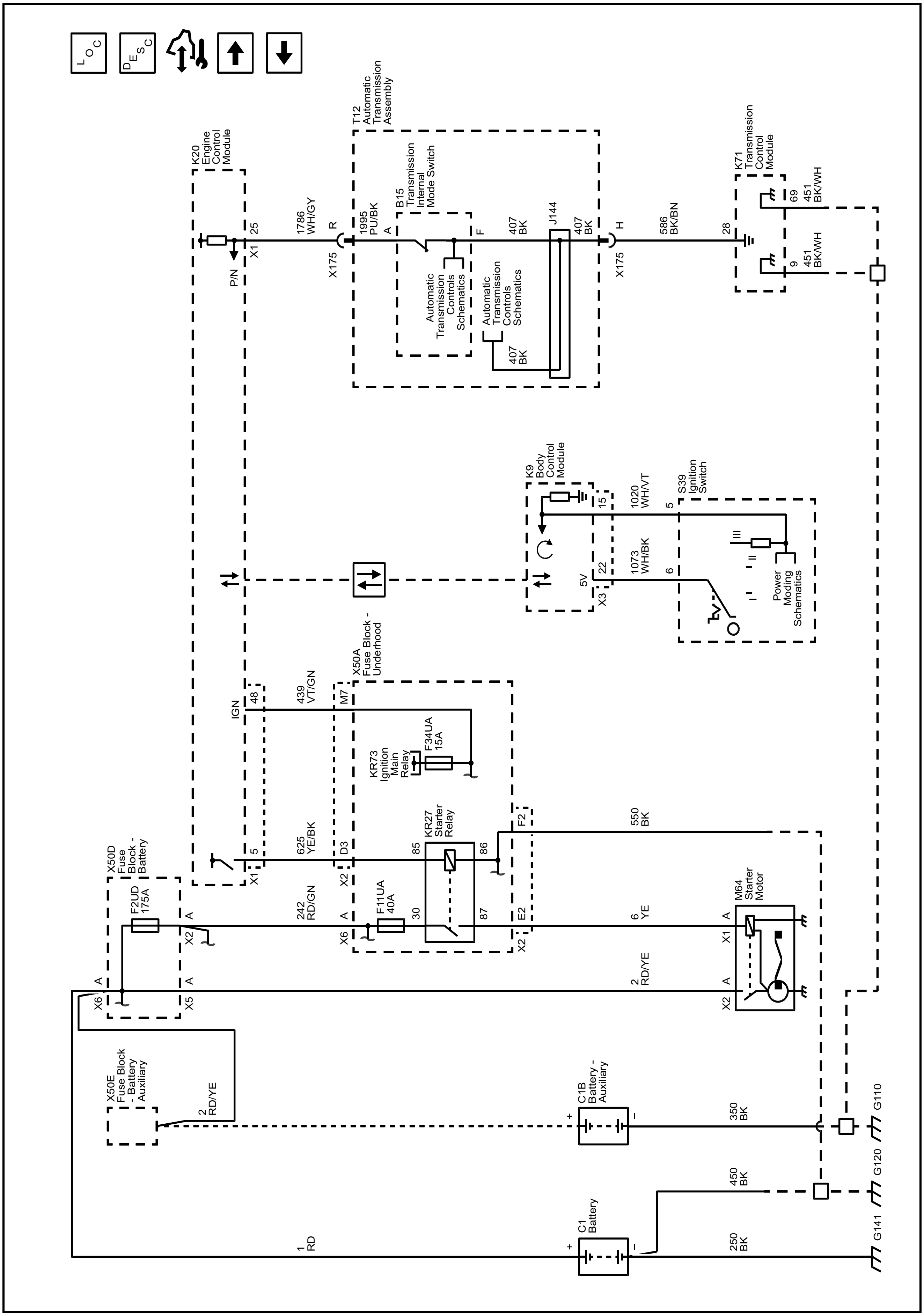
Starting and Charging Schematics (Starting - Automatic Transmission (MYC or MYD))


X6
A
X50D
Fuse
Block -
Battery
F2UD
175A
X5
A
X2
A
1
RD
242
RD/GN
C1
Battery
+
-
450
BK
250
BK
G103
G141
K20
Engine
Control
Module
IGN
P/N
X1
63
51
(1500)
X1
27
19
(L96/LC8)
625
YE/BK
439
VT/GN
X2
58 (1500)
X1
34 (L96/LC8)
1786
WH/GY
X6
A
X2
D3
M7
X50A
Fuse Block -
Underhood
F11UA
40A
KR73
Ignition
Main
Relay
F34UA
15A
30
85
KR27
Starter
Relay
87
86
X2
E2
F2
2
RD/YE
6
YE
550
BK
X2
A
X1
X1
1 (1500)
A (L96/LC8)
M64
Starter
Motor
G110
K9
Body
Control
Module
5V
X3
22
15
1073
WH/BK
1020
WH/VT
6
5
S39
Ignition
Switch
I
II
III
Power
Moding
Schematics
X1
3
T12
Automatic
Transmission
Assembly
Q8
Control
Solenoid
Valve
Assembly
X2
F
1786
WH
B15
Transmission
Internal
Mode Switch
Automatic
Transmission
Controls
Schematics
1798
GY
X2
A
K71
Transmission
Control
Module
X1
5
451
BK/WH
4677268

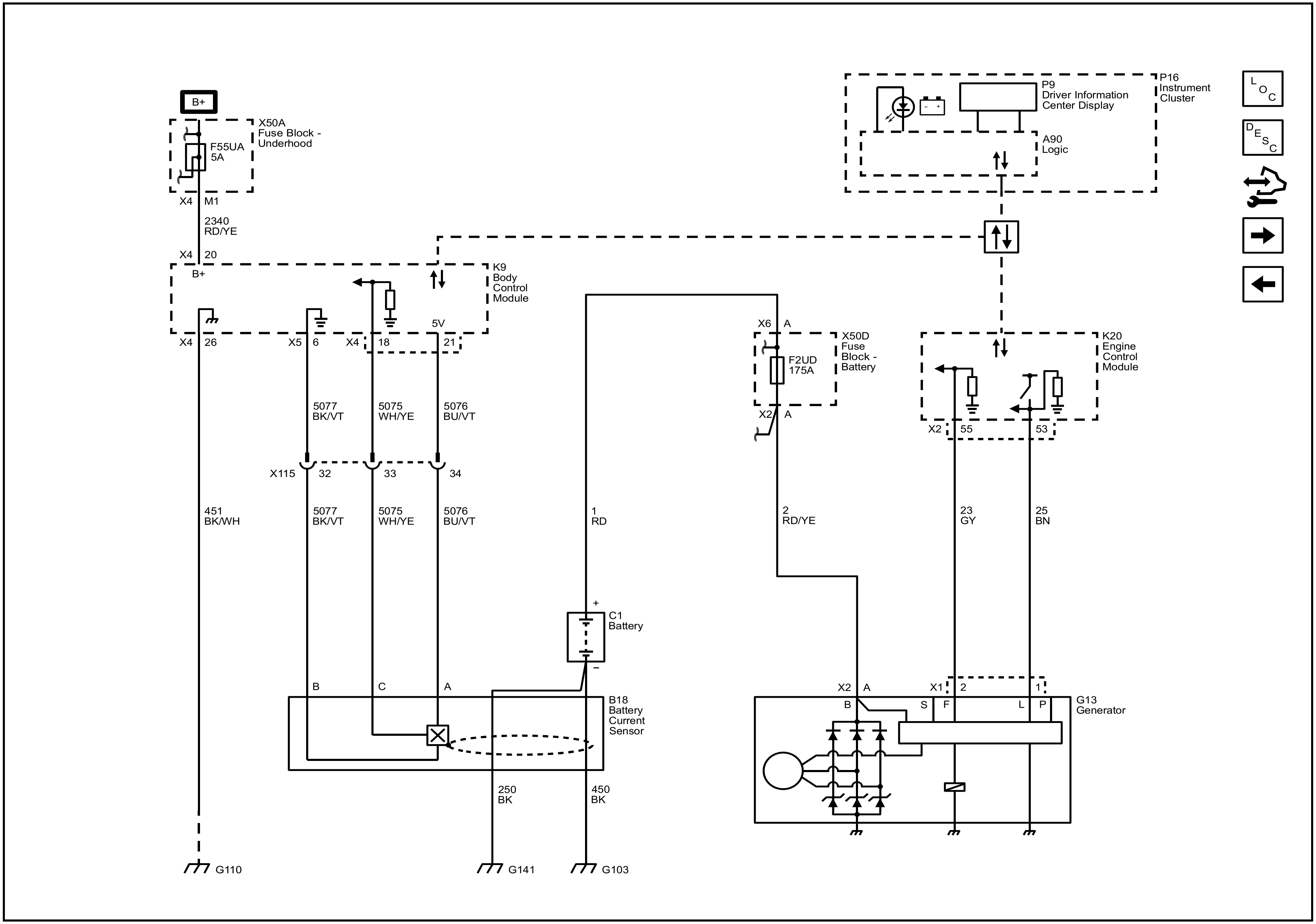
Starting and Charging Schematics (Starting - Automatic Transmission (M5U))


X50D Fuse Block - Battery
F2UD 175A
X6 A
X5 A
X2 A
K20 Engine Control Module
P/N
IGN
X1 63
51
X2 58
1 RD
242 RD/GN
625 YE/BK
439 VT/GN
1786 WH/GY
X175 35
X6 A
X2 D3
M7
X50A Fuse Block - Underhood
F11UA 40A
30
85
KR27 Starter Relay
KR73 Ignition Main Relay
F34UA 15A
87
86
X2 E2
F2
T12 Automatic Transmission Assembly
1786 WH/GY
X176 12
1786 WH/GY
1
B15 Transmission Internal Mode Switch
Automatic Transmission Controls Schematics
2
3927 BK/GY
X176 20
3927 BK/GY
X175 30
3297 BK/GY
25
K71 Transmission Control Module
65
451 BN/WH
K9 Body Control Module
5V
X3 22
15
1073 WH/BK
1020 WH/VT
6
5
S39 Ignition Switch
I
II
III
Power Moding Schematics
+
C1 Battery
−
2 RD/YE
6 YE
550 BK
450 BK
250 BK
X2 A
X1 1
M64 Starter Motor
G103
G141
G110
4677269

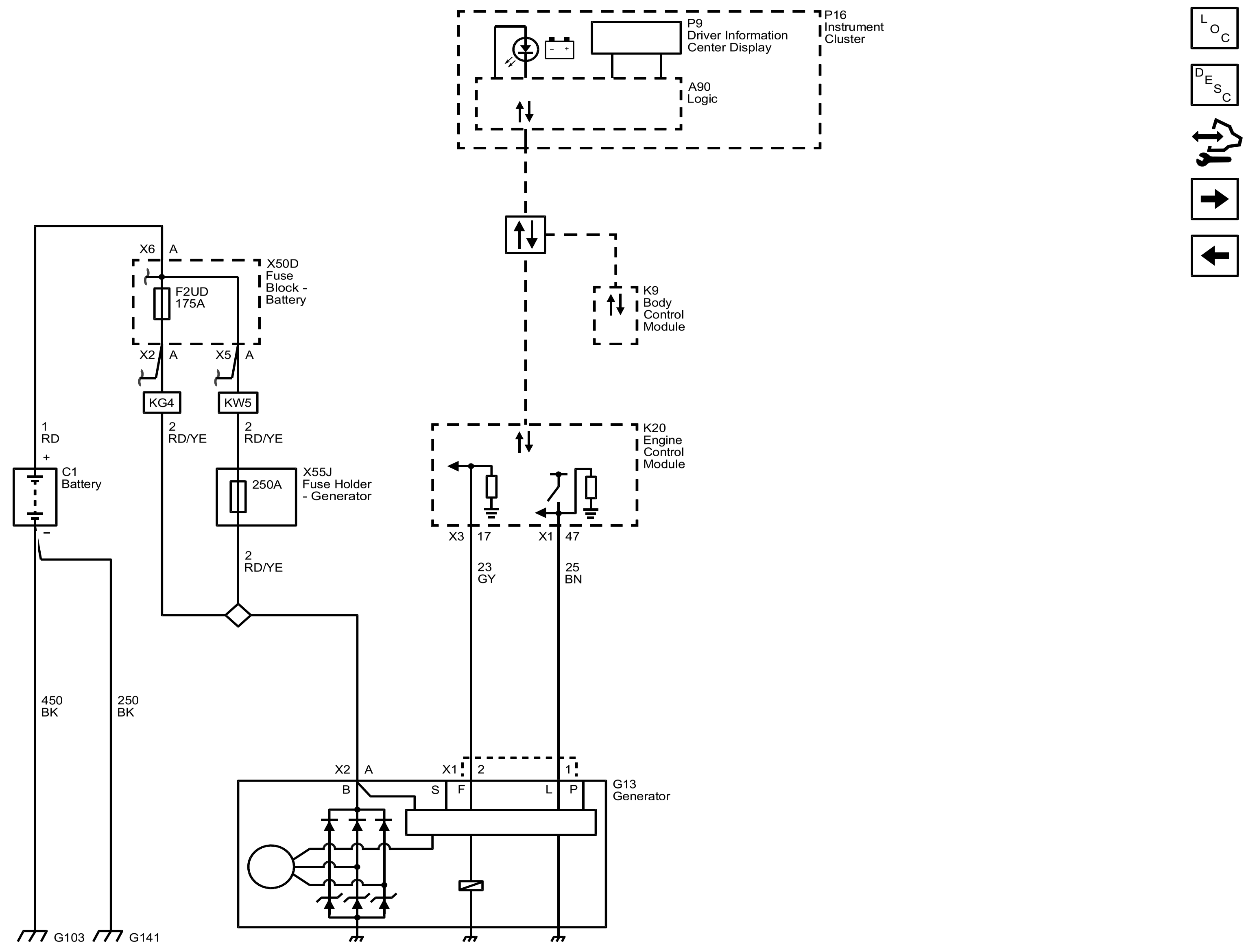
Starting and Charging Schematics (Starting - Automatic Transmission (MW7))


4677270
LOC
DESC
K20 Engine Control Module
X1 25
P/N
1786 WH/GY
R
X175
T12 Automatic Transmission Assembly
1995 PU/BK
A
B15 Transmission Internal Mode Switch
Automatic Transmission Controls Schematics
F
407 BK
J144
407 BK
H
X175
586 BK/BN
28
K71 Transmission Control Module
69
451 BK/WH
9
451 BK/WH
K9 Body Control Module
15
1020 WH/VT
5
S39 Ignition Switch
III
II
I
22
5V
X3
1073 WH/BK
6
Power Moding Schematics
IGN
48
439 VT/GN
M7
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
F34UA 15A
X1 5
625 YE/BK
D3
X2
85
KR27 Starter Relay
86
F2
550 BK
X50D Fuse Block - Battery
F2UD 175A
A
X2
242 RD/GN
A
X6
F11UA 40A
30
87
E2
X2
6 YE
A
X1
M64 Starter Motor
X6 A
X5 A
2 RD/YE
A
X2
X50E Fuse Block - Battery Auxiliary
2 RD/YE
+
C1B Battery - Auxiliary
-
350 BK
G110
450 BK
G120
1 RD
+
C1 Battery
-
250 BK
G141

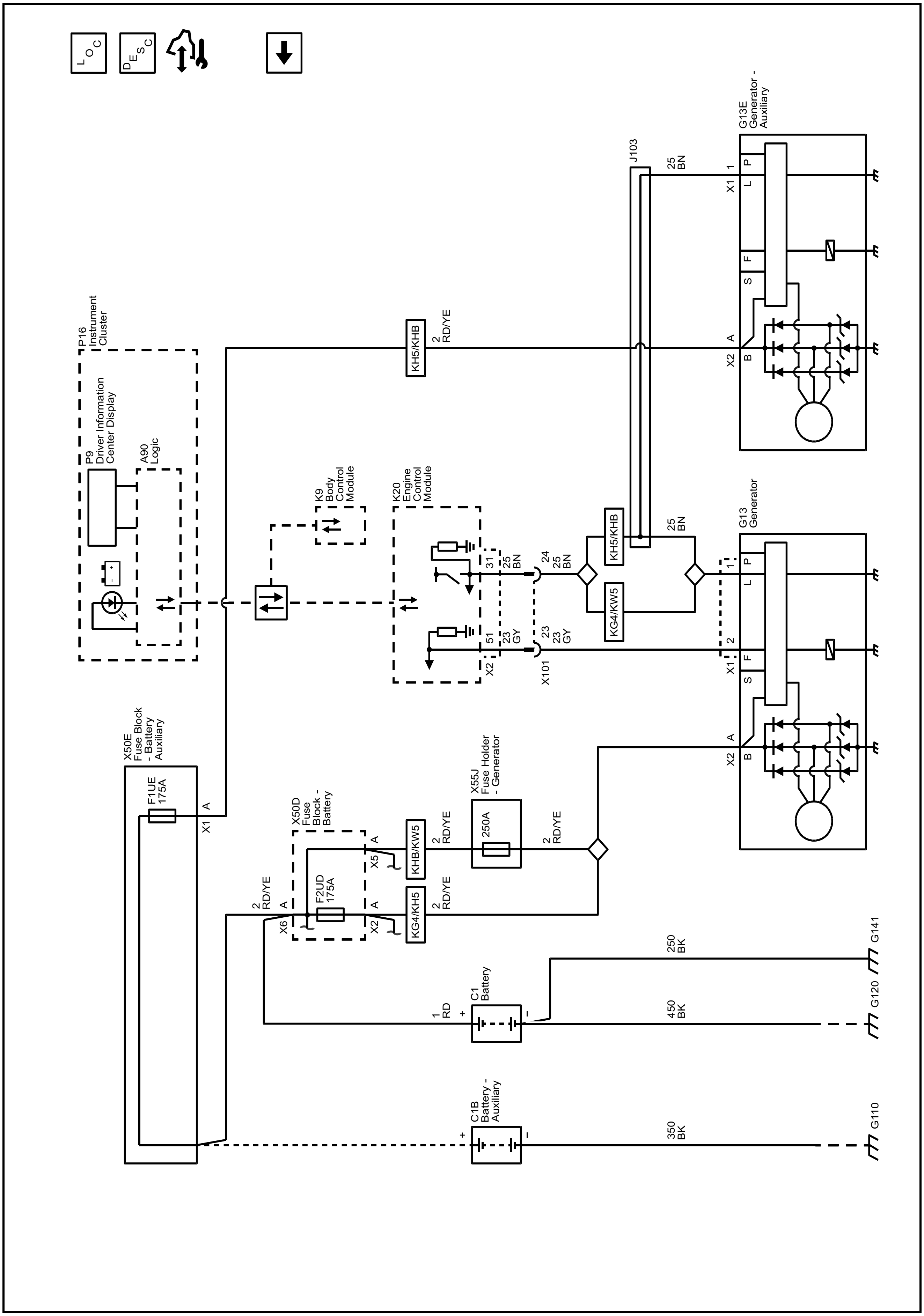
Starting and Charging Schematics (Charging (1500))


B+
X50A
Fuse Block -
Underhood
F55UA
5A
X4
M1
2340
RD/YE
X4
20
B+
K9
Body
Control
Module
5V
X4
26
X5
6
X4
18
21
5077
BK/VT
5075
WH/YE
5076
BU/VT
X115
32
33
34
451
BK/WH
1
RD
2
RD/YE
23
GY
25
BN
C1
Battery
+
−
B
C
A
B18
Battery
Current
Sensor
250
BK
450
BK
G110
G141
G103
X6
A
X50D
Fuse
Block -
Battery
F2UD
175A
X2
A
K20
Engine
Control
Module
X2
55
53
X1
2
1
B
S
F
L
P
G13
Generator
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
LOC
DESC
4677271

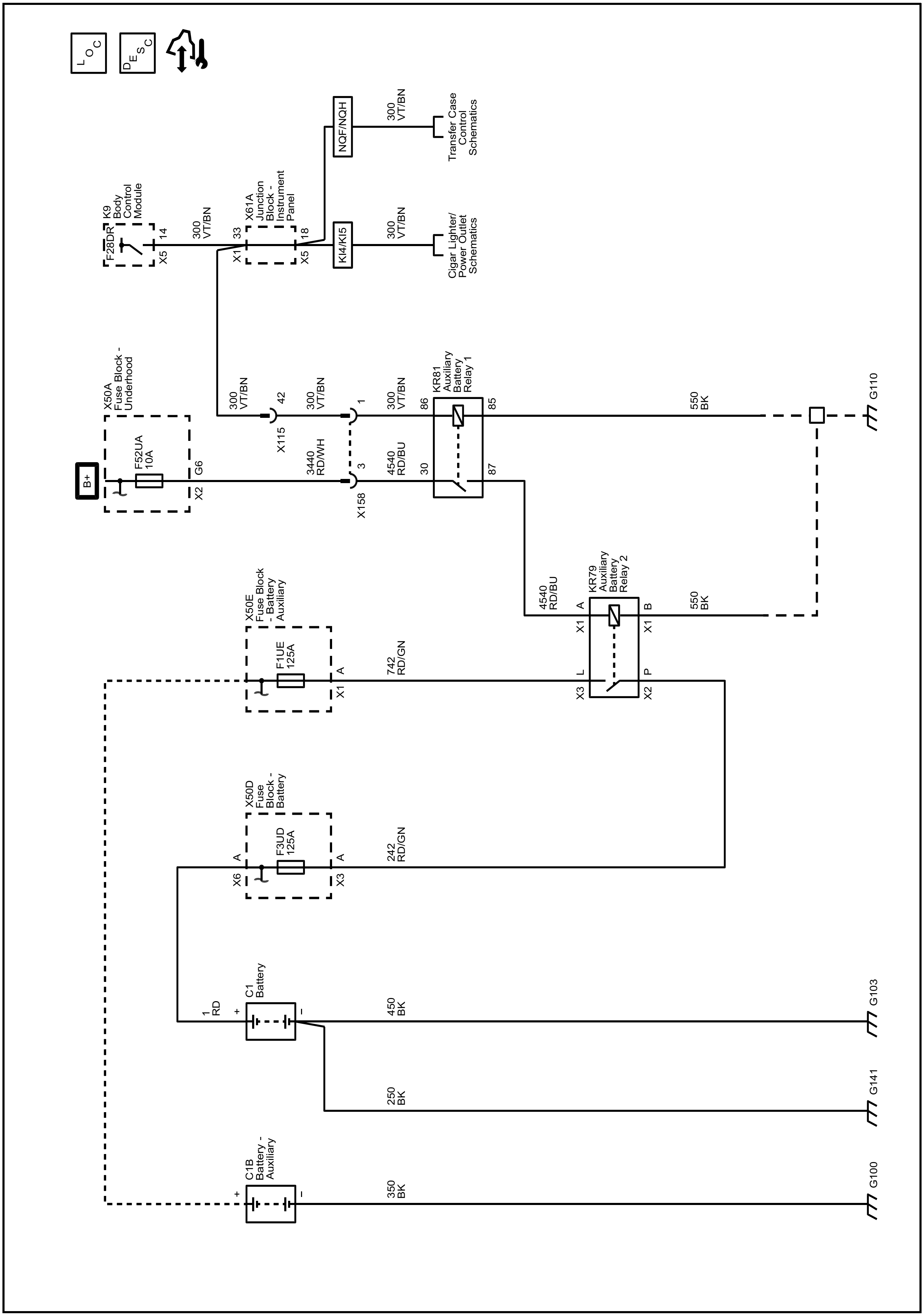
Starting and Charging Schematics (Charging (L96 or LC8))


P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
K9
Body
Control
Module
K20
Engine
Control
Module
X3 17
X1 47
23
GY
25
BN
X6 A
X50D
Fuse
Block -
Battery
F2UD
175A
X2 A
X5 A
KG4
KW5
1
RD
+
C1
Battery
−
2
RD/YE
2
RD/YE
X55J
Fuse Holder
- Generator
250A
2
RD/YE
450
BK
250
BK
G103
G141
X2 A
X1 2
1
B
S
F
L
P
G13
Generator
4677273

Starting and Charging Schematics (Charging (L5P))


4677274
L O C
D E S C
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
K9 Body Control Module
K20 Engine Control Module
J103
G13E Generator - Auxiliary
G13 Generator
X50E Fuse Block - Battery Auxiliary
F1UE 175A
X1 A
X50D Fuse Block - Battery
F2UD 175A
X6 A
X2 A
X5 A
X55J Fuse Holder - Generator
250A
KH5/KHB
KHB/KW5
KG4/KH5
KG4/KW5
KH5/KHB
2 RD/YE
25 BN
23 GY
24
31
51
X2
X101
X1 1
X1 2
X2 A
X2 B
L P F S
1 RD
C1 Battery
C1B Battery - Auxiliary
+
-
250 BK
450 BK
350 BK
G141
G120
G110

Auxiliary Battery Schematics (Auxiliary Battery Relays (K4B or K4D))



4677276
LOC
DESC
B+
X50A Fuse Block - Underhood
F52UA 10A
X2 G6
3440 RD/WH
X158 3
X115 42
300 VT/BN
1
K9 Body Control Module
F28DR
X5 14
X61A Junction Block - Instrument Panel
X1 33
X5 18
KI4/KI5
NQF/NQH
Cigar Lighter/ Power Outlet Schematics
Transfer Case Control Schematics
KR81 Auxiliary Battery Relay 1
86 85 30 87
4540 RD/BU
550 BK
G110
KR79 Auxiliary Battery Relay 2
X1 A
X1 B
X3 L
X2 P
X50E Fuse Block - Battery - Auxiliary
F1UE 125A
X1 A
742 RD/GN
X50D Fuse Block - Battery
F3UD 125A
X6 A
X3 A
242 RD/GN
C1 Battery
1 RD
+
-
450 BK
G103
250 BK
G141
C1B Battery - Auxiliary
350 BK
G100

Description and Operation

Battery Description and Operation

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- ***Always shield your eyes and avoid leaning over the battery whenever possible.***
- ***Do not expose the battery to open flames or sparks.***
- ***Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.***
- ***Follow each step of the jump starting procedure in order.***
- ***Treat both the booster and the discharged batteries carefully when using the jumper cables.***

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

Battery Low Start Vehicle Message

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

Battery Ratings

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

Amperage Hours

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

Cold Cranking Amperage

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at −18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- It monitors the battery voltage and estimates the battery condition.
- It takes corrective actions by boosting idle speeds, and adjusting the regulated voltage.
- It performs diagnostics and driver notification.

The battery condition is estimated during ignition-off and during ignition-on. During ignition-off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

The state-of-charge can be used as a diagnostic tool to tell the customer or the dealer the condition of the battery. Throughout ignition-on, the algorithm continuously estimates state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and temperature.

While running, the battery degree of discharge is primarily determined by a battery current sensor, which is integrated to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

The Charging System Description and Operation is divided into 3 sections. The first section describes the charging system components and their integration into the electrical power management. The second section describes charging system operation. The third section describes the instrument panel cluster operation of the charge indicator, driver information center messages, and voltmeter operation.

Charging System Components

Generator

The generator is a serviceable component. If there is a diagnosed failure of the generator it must be replaced as an assembly. The engine drive belt drives the generator. When the rotor is spun it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator. It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit failure, the generator defaults to an output voltage of 13.8 V.

Body Control Module (BCM)

The body control module (BCM) is a GMLAN device. It communicates with the engine control module (ECM) and the instrument panel cluster for electrical power management (electrical power management) operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors a battery current sensor, the battery positive voltage circuit, and estimated battery temperature to determine battery state of charge. The BCM performs idle boost.

Battery Current Sensor

The battery current sensor is a serviceable component that is connected to either the negative or positive battery cable at the battery. The battery current sensor is a 3-wire hall effect current sensor. The battery current sensor monitors the battery current. It directly inputs to the BCM. It creates a 5-volt pulse width modulation (PWM) signal of 128 Hz with a duty cycle of 0–100 percent. Normal duty cycle is between 5–95 percent. Between 0–5 percent and 95–100 percent are for diagnostic purposes.

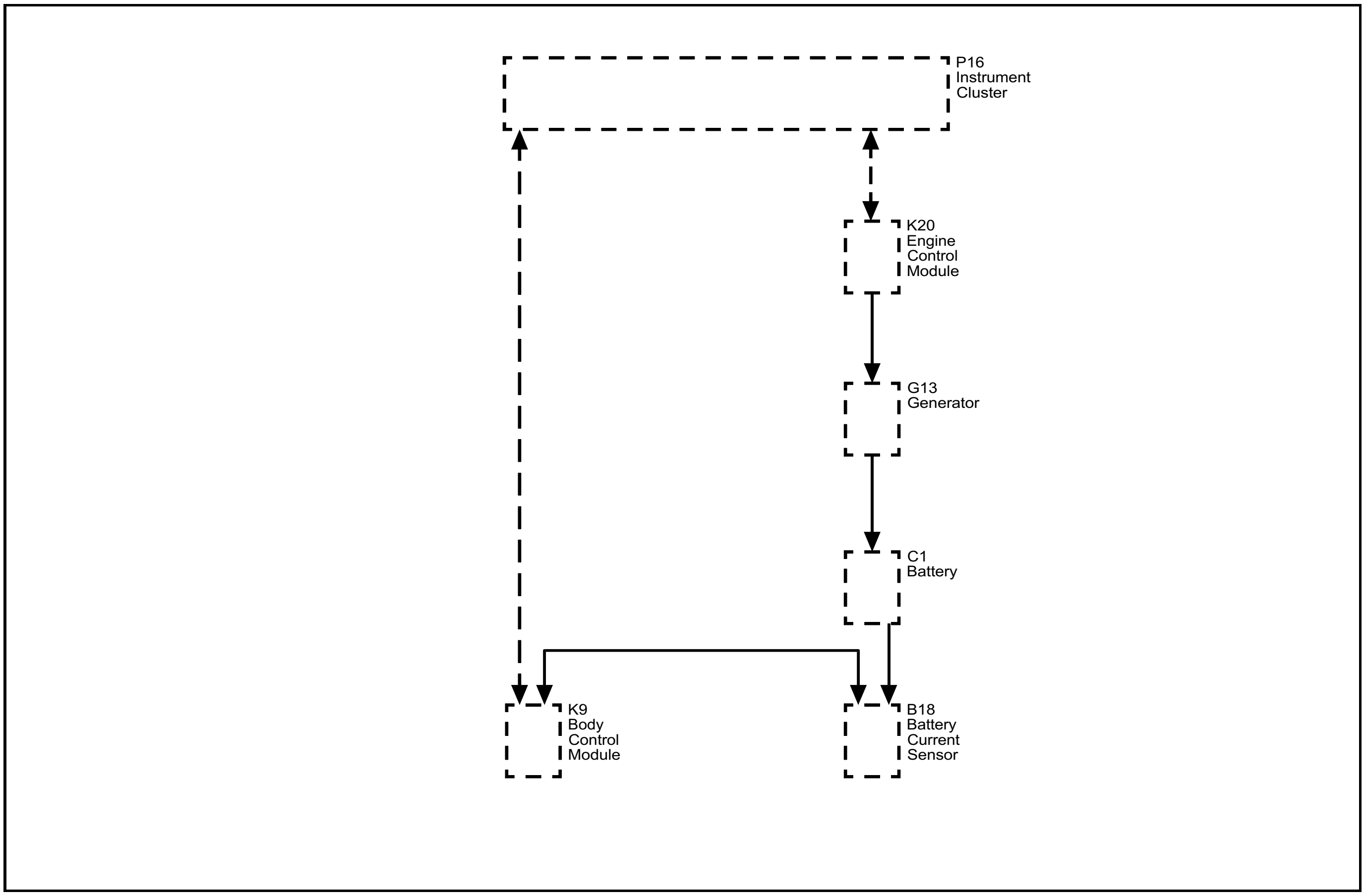
Engine Control Module (ECM)

When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

Instrument Panel Cluster

The instrument panel cluster provides the customer notification in case a concern with the charging system. There are 2 means of notification, a charge indicator and a driver information center message of SERVICE BATTERY CHARGING SYSTEM if equipped.

Charging System Block Diagram



Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Headlamp Mode
- Start Up Mode
- Voltage Reduction Mode

The engine control module (ECM) controls the generator through the generator turn ON signal circuit. The ECM monitors the generator performance though the generator field duty cycle signal circuit. The signal is a pulse width modulation (PWM) signal of 128 Hz with a duty cycle of 0–100 percent. Normal duty cycle is between 5–95 percent. Between 0–5 percent and 95–100 percent are for diagnostic purposes. The following table shows the commanded duty cycle and output voltage of the generator:

Commanded Duty Cycle	Generator Output Voltage
10%	11 V
20%	11.56 V
30%	12.12 V
40%	12.68 V
50%	13.25 V
60%	13.81 V
70%	14.37 V
80%	14.94 V
90%	15.5 V

The generator provides a feedback signal of the generator voltage output through the generator field duty cycle signal circuit to the ECM. This information is sent to the body control module (BCM). The signal is PWM signal of 128 Hz with a duty cycle of 0–100 percent. Normal duty cycle is between 5–99 percent. Between 0–5 percent and 100 percent are for diagnostic purposes.

Battery Sulfation Mode

The BCM will enter this mode when the interpreted generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met.

- The wipers are ON for more than 3 seconds.
- GMLAN (Climate Control Voltage Boost Mode Request) is true, as sensed by the HVAC control head. High speed cooling fan, rear defogger and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0° C (32°F).
- Battery State of Charge is less than 80 percent.
- Vehicle speed is greater than 145 km/h (90 mph)
- Current sensor fault exists.
- System voltage was determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 amperes and greater than −8 amperes, and the battery state-of-charge is greater than or equal to 80 percent. Its targeted generator output voltage is the open circuit voltage of the battery and can be between 12.5–13.1 V. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the headlamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 seconds.

Voltage Reduction Mode

The BCM will enter Voltage Reduction Mode when the calculated ambient air temperature is above 0°C (32° F). The calculated battery current is less than 1 ampere and greater than −7 amperes, and the generator field duty cycle is less than 99 percent. Its targeted generator output voltage is 12.9 V. The BCM will exit this mode once the criteria are met for Charge Mode.

Instrument Panel Cluster Operation

Charge Indicator Operation

The instrument panel cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The engine control module (ECM) detects that the generator output is less than 11 V or greater than 16 V. The instrument panel cluster receives a GMLAN message from the ECM requesting illumination.
- The instrument panel cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 seconds. The instrument panel cluster receives a GMLAN message from the body control module (BCM) indicating there is a system voltage range concern.
- The instrument panel cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 seconds.

Display Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is commanded ON when a charging system DTC is a current DTC. The message is turned OFF when the conditions for clearing the DTC have been met.

Electrical Power Management Description and Operation (Gasoline)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Electrical Power Management Description and Operation (Diesel)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition. Idle boost consists of three steps: idle boost 1, idle boost 2, and idle boost 3 (approximately 750, 900, and 1050 rpm respectively). Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Starting System Description and Operation

The starter motors are non-repairable starter motors. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the ignition switch is released from the START position, the START relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized. The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

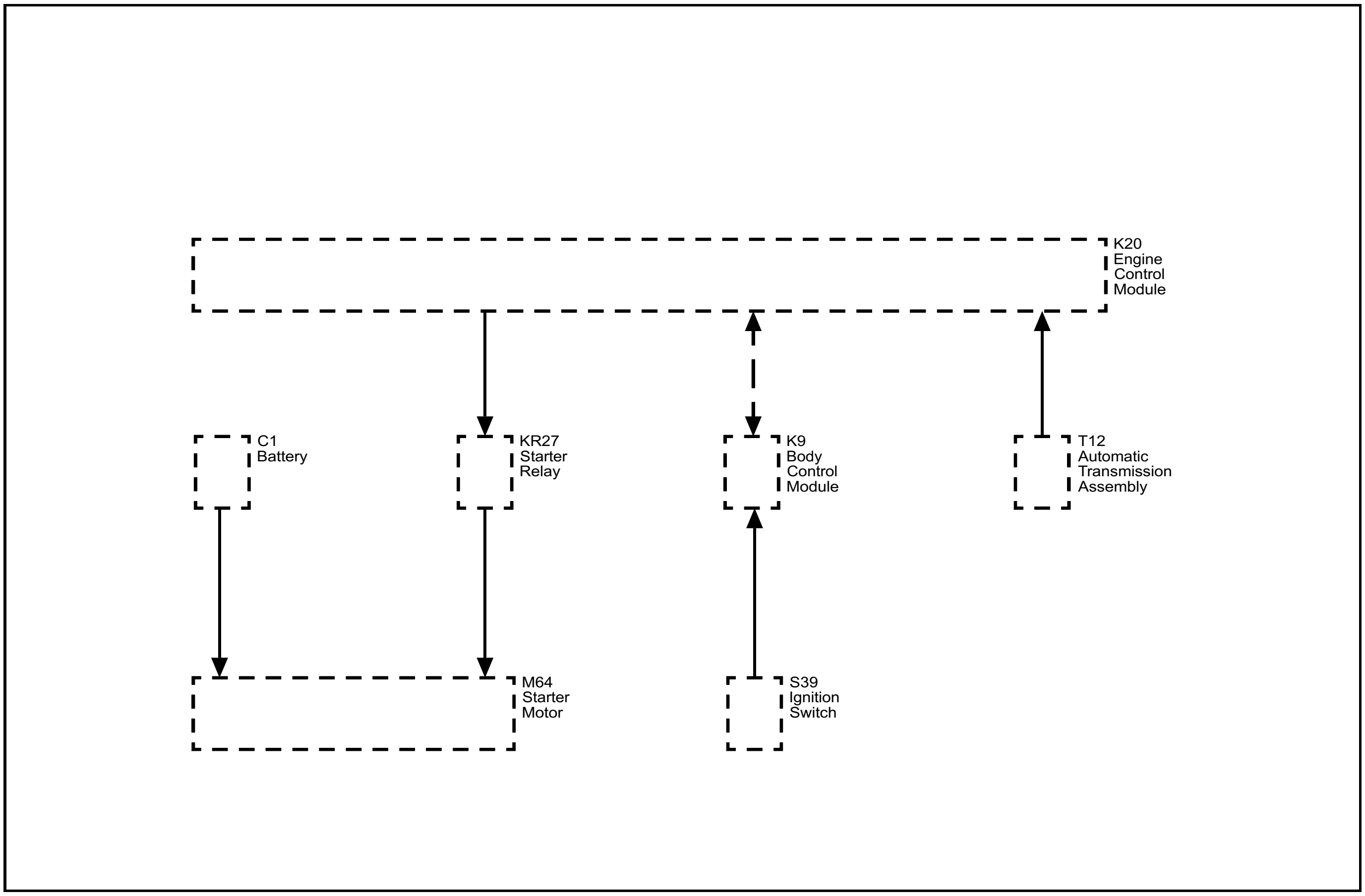
Circuit Description (Key Start)

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

With KL9

To support the increased number of engine starts, the starter motor is upgraded with a high performance electric motor and a stronger pinion engagement mechanism with reduced noise levels.

Starting System Block Diagram


K20
Engine
Control
Module
C1
Battery
KR27
Starter
Relay
K9
Body
Control
Module
T12
Automatic
Transmission
Assembly
M64
Starter
Motor
S39
Ignition
Switch

3603725

BLANK

Section 5

Power and Signal Distribution

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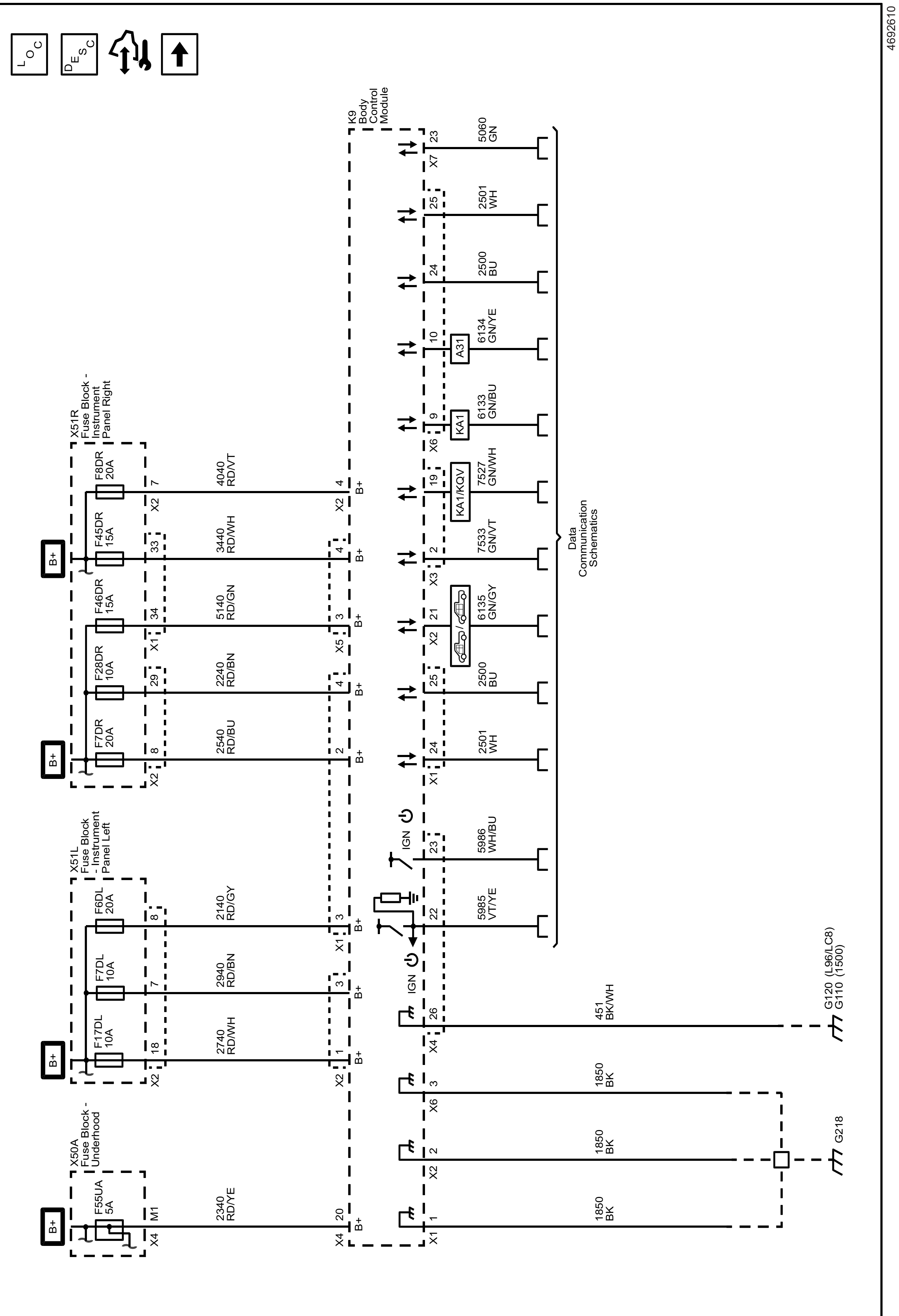
BLANK

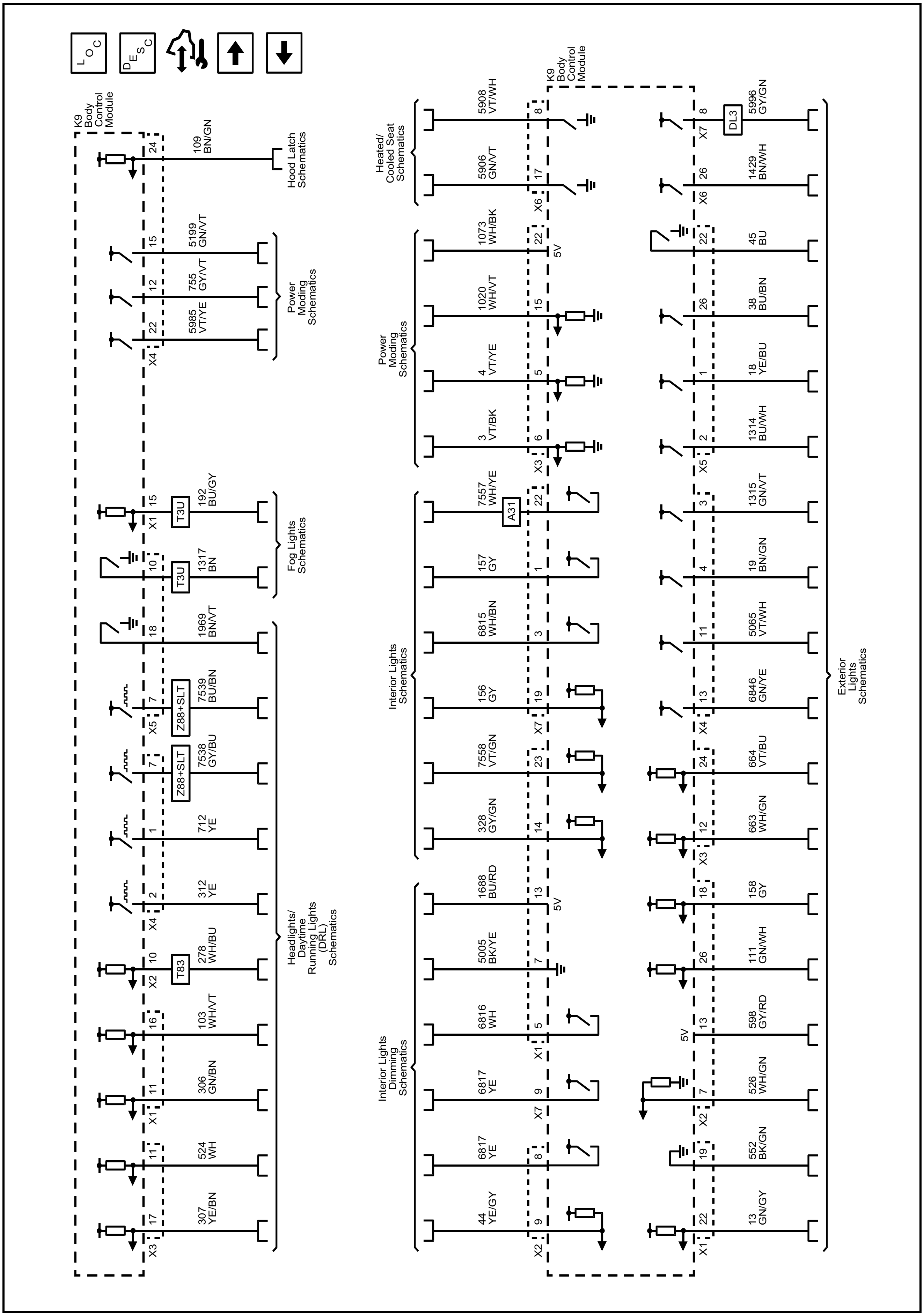
Data Communications

Schematic and Routing Diagrams

Body Control System Schematics (Module Power, Ground and Serial Data)

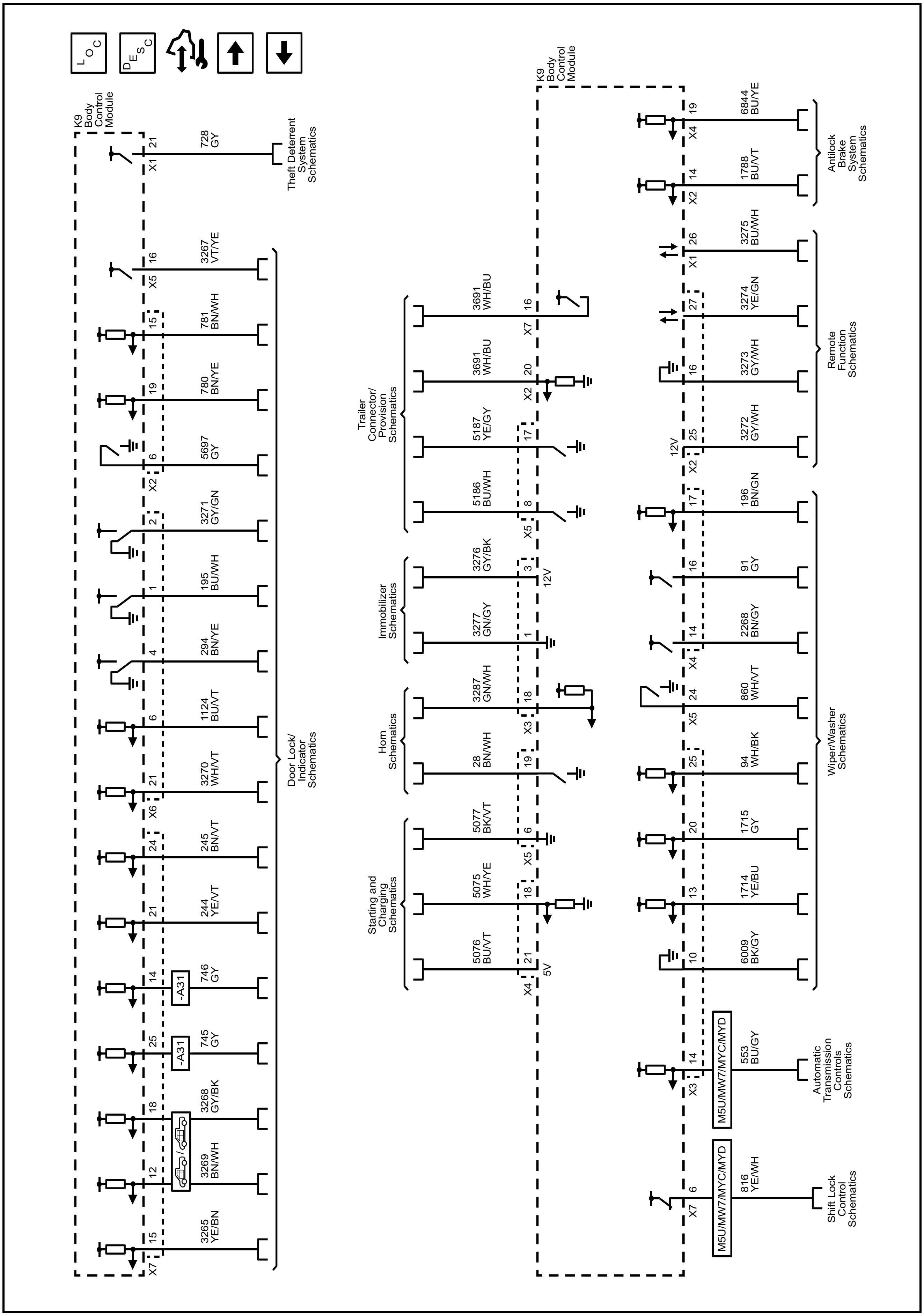

4692610
LOC
DESC
B+
X50A Fuse Block - Underhood
F55UA 5A
X4 M1
2340 RD/YE
X4 20 B+
X51L Fuse Block - Instrument Panel Left
F17DL 10A
F7DL 10A
F6DL 20A
X2 18
7
8
2740 RD/WH
2940 RD/BN
2140 RD/GY
X2 1 B+
3 B+
X1 3 B+
X51R Fuse Block - Instrument Panel Right
F7DR 20A
F28DR 10A
F46DR 15A
F45DR 15A
F8DR 20A
X2 8
29
X1 34
33
X2 7
2540 RD/BU
2240 RD/BN
5140 RD/GN
3440 RD/WH
4040 RD/VT
2 B+
4 B+
X5 3 B+
4 B+
X2 4 B+
K9 Body Control Module
X1 1
X2 2
X6 3
X4 26
IGN
22
23
X1 24
25
X2 21
X3 2
19
X6 9
10
24
25
X7 23
1850 BK
1850 BK
1850 BK
451 BK/WH
5985 VT/YE
5986 WH/BU
2501 WH
2500 BU
6135 GN/GY
7533 GN/VT
7527 GN/WH
6133 GN/BU
6134 GN/YE
2500 BU
2501 WH
5060 GN
KA1/KQV
KA1
A31
G218
G120 (L96/LC8)
G110 (1500)
Data Communication Schematics

Body Control System Schematics (Subsystem References (1 of 3))

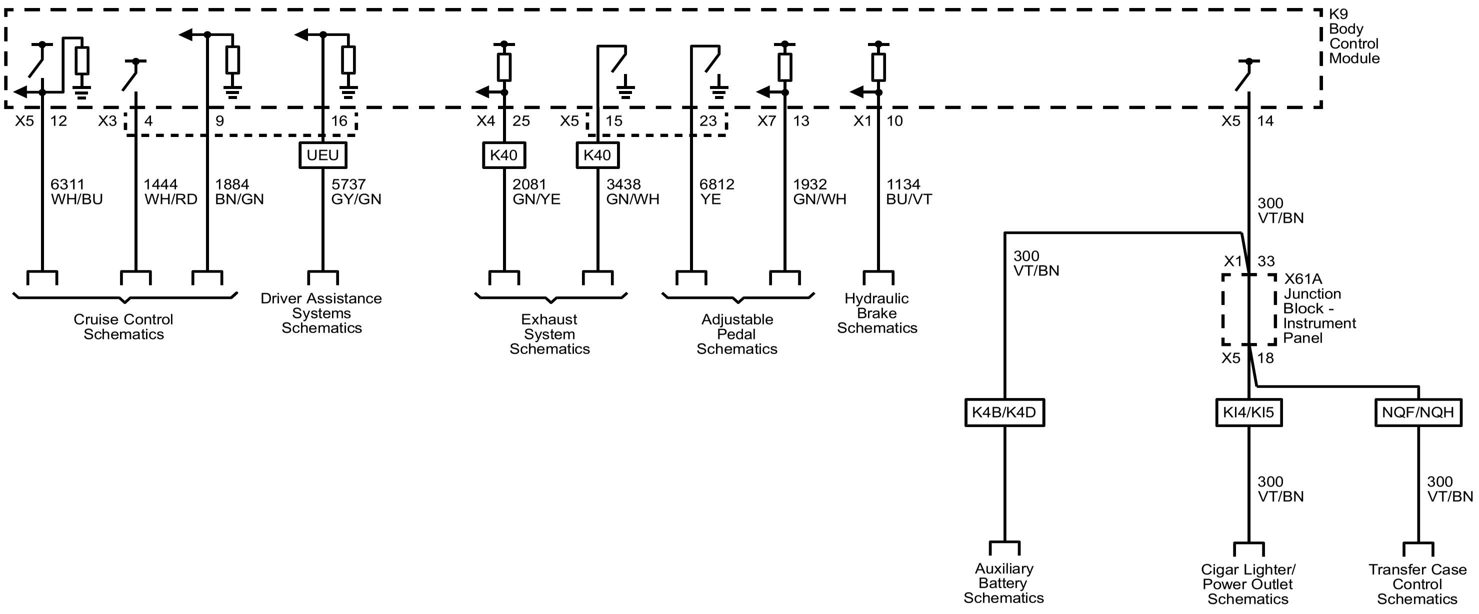

LOC
DESC
K9 Body Control Module
X3 17 307 YE/BN
11 524 WH
X1 11 306 GN/BN
16 103 WH/VT
X2 10 T83 278 WH/BU
X4 2 312 YE
1 712 YE
7 Z88+SLT 7538 GY/BU
X5 7 Z88+SLT 7539 BU/BN
18 1969 BN/VT
10 T3U 1317 BN
X1 15 T3U 192 BU/GY
X4 22 5985 VT/YE
12 755 GY/VT
15 5199 GN/VT
24 109 BN/GN
Headlights/ Daytime Running Lights (DRL) Schematics
Fog Lights Schematics
Power Moding Schematics
Hood Latch Schematics
X2 9 44 YE/GY
8 6817 YE
X7 9 6817 YE
X1 5 6816 WH
7 5005 BK/YE
13 1688 BU/RD
5V
14 328 GY/GN
23 7558 VT/GN
X7 19 156 GY
3 6815 WH/BN
1 157 GY
22 A31 7557 WH/YE
X3 6 3 VT/BK
5 4 VT/YE
15 1020 WH/VT
22 1073 WH/BK
5V
X6 17 5906 GN/VT
8 5908 VT/WH
Interior Lights Dimming Schematics
Interior Lights Schematics
Power Moding Schematics
Heated/ Cooled Seat Schematics
K9 Body Control Module
X1 22 13 GN/GY
19 552 BK/GN
X2 7 526 WH/GN
5V
13 598 GY/RD
26 111 GN/WH
18 158 GY
X3 12 663 WH/GN
24 664 VT/BU
X4 13 6846 GN/YE
11 5065 VT/WH
4 19 BN/GN
3 1315 GN/VT
X5 2 1314 BU/WH
1 18 YE/BU
26 38 BU/BN
22 45 BU
X6 26 1429 BN/WH
X7 8 DL3 5996 GY/GN
Exterior Lights Schematics

4692613

Body Control System Schematics (Subsystem References (2 of 3))


4692614
LOC
DESC
K9 Body Control Module
X1 21
728 GY
Theft Deterrent System Schematics
X5 16
3267 VT/YE
15
781 BN/WH
19
780 BN/YE
X2 6
5697 GY
2
3271 GY/GN
1
195 BU/WH
4
294 BN/YE
6
1124 BU/VT
X6 21
3270 WH/VT
24
245 BN/VT
21
244 YE/VT
14
-A31
746 GY
25
-A31
745 GY
18
3268 GY/BK
12
3269 BN/WH
X7 15
3265 YE/BN
Door Lock/ Indicator Schematics
Trailer Connector/ Provision Schematics
X7 16
3691 WH/BU
X2 20
3691 WH/BU
17
5187 YE/GY
X5 8
5186 BU/WH
Immobilizer Schematics
3
3276 GY/BK
12V
1
3277 GN/GY
Horn Schematics
X3 18
3287 GN/WH
19
28 BN/WH
Starting and Charging Schematics
X5 6
5077 BK/VT
18
5075 WH/YE
X4 21
5076 BU/VT
5V
K9 Body Control Module
X4 19
6844 BU/YE
X2 14
1788 BU/VT
Antilock Brake System Schematics
X1 26
3275 BU/WH
27
3274 YE/GN
16
3273 GY/WH
X2 25
12V
3272 GY/WH
Remote Function Schematics
17
196 BN/GN
16
91 GY
X4 14
2268 BN/GY
X5 24
860 WH/VT
25
94 WH/BK
20
1715 GY
13
1714 YE/BU
10
6009 BK/GY
Wiper/Washer Schematics
X3 14
M5U/MW7/MYC/MYD
553 BU/GY
Automatic Transmission Controls Schematics
X7 6
M5U/MW7/MYC/MYD
816 YE/WH
Shift Lock Control Schematics

Body Control System Schematics (Subsystem References (3 of 3))


K9
Body
Control
Module
X5 12
6311
WH/BU
X3 4
1444
WH/RD
9
1884
BN/GN
16
UEU
5737
GY/GN
Cruise Control
Schematics
Driver Assistance
Systems
Schematics
X4 25
K40
2081
GN/YE
X5 15
K40
3438
GN/WH
Exhaust
System
Schematics
23
6812
YE
X7 13
1932
GN/WH
Adjustable
Pedal
Schematics
X1 10
1134
BU/VT
Hydraulic
Brake
Schematics
X5 14
300
VT/BN
X1 33
X61A
Junction
Block -
Instrument
Panel
X5 18
300
VT/BN
K4B/K4D
Auxiliary
Battery
Schematics
KI4/KI5
300
VT/BN
Cigar Lighter/
Power Outlet
Schematics
NQF/NQH
300
VT/BN
Transfer Case
Control
Schematics

4692616

Description and Operation

Body Control System Description and Operation

The body control system consists of the body control module (BCM), communications, and various input and outputs. Some inputs, outputs and messages require other modules to interact with the BCM. The BCM also has discrete input and output terminals to control the vehicle's body functions. The BCM is wired to the high speed GMLAN serial data bus, low speed GMLAN serial data bus and Multiple LIN buses and acts as a gateway between them.

Power Mode Master

This vehicle body control module (BCM) functions as the power mode master (PMM). The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determining the power mode that will be sent over the serial data circuits to the other modules that need this information; the PMM will activate relays and other direct outputs of the PMM as needed. Refer to *Power Mode Description and Operation on page 5-917* for a complete description of power mode functions.

Gateway

The body control module (BCM) in this vehicle functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus for communication between the various modules. The gateway will interact with each network according to that network's transmission protocol.

All communication between the BCM and a scan tool is on the high speed GMLAN serial data circuits. A lost communication DTC typically is set in modules other than the module with a communication failure.

Body Control

The various body control module (BCM) input and output circuits are illustrated in the corresponding functional areas on the BCM electrical schematics. Refer to the *Body Control System Schematics on page 5-4* for more detailed information.

Data Link Communications Description and Operation

Note: This is an overview of different serial data buses used by GM devices to communicate with each others. Use *CELL Link Error - Link target cell (cell ID 156662) is invalid for this publication.* to find out which serial data buses are configured for a specific vehicle.

Circuit Description

There are many components in a vehicle that rely on information from other sources, transmit information to other sources, or both. Serial data communication networks provide a reliable, cost effective, way for various components of the vehicle to “talk” to one another and share information.

GM uses a number of different communication buses to insure the timely and efficient exchange of information between devices. When compared to each other, some of these buses are different in nature as far as speed, signal characteristics, and behavior. An example of this is the High Speed GMLAN and Low Speed GMLAN buses.

On the other hand, when other buses are compared to each other they have similar characteristics and simply operate in parallel. In this case they are used to group together components which have high interaction. Examples are the High Speed GMLAN, Powertrain Expansion, and Chassis Expansion buses. This allows them to communicate with each other on a bus with reduced message congestion insuring faster and the more timely exchange of information than if all vehicle devices were on a single bus.

The majority of information that exists within a given network generally stays local; however some information will have to be shared on other networks. Control modules designated as Gateway’s perform the function of transferring information between the various buses. A Gateway module is connected to at least 2 buses and will interact with each network according to its message strategy and transmission models.

GMLAN provides the capability for a receiving device to monitor message transmissions from other devices in order to determine if messages of interest are not being received. The primary purpose is to allow reasonable default values to be substituted for the information no longer being received. Additionally, a device may set a Diagnostic Trouble Code to indicate that the device it is expecting information from is no longer communicating.

High Speed GMLAN Circuit Description

A High Speed GMLAN Bus is used where data needs to be exchanged at a high enough rate to minimize the delay between the occurrence of a change in sensor value and the reception of this information by a control device using the information to adjust vehicle system performance.

The High Speed GMLAN serial data network consists of two twisted wires. One signal circuit is identified as GMLAN-High and the other signal circuit is identified as GMLAN-Low. At each end of the data bus there is a 120 Ω termination resistor between the GMLAN-High and GMLAN-Low circuits.

Data symbols (1’s and 0’s) are transmitted sequentially at a rate of 500 Kbit/s. The data to be transmitted over the bus is represented by the voltage difference between the GMLAN-High signal voltage and the GMLAN-Low signal voltage.

When the two wire bus is at rest the GMLAN-High and GMLAN-Low signal circuits are not being driven and this represents a logic “1”. In this state both signal circuits are at the same voltage of 2.5 V. The differential voltage is approximately 0 V.

When a logic “0” is to be transmitted, the GMLAN-High signal circuit is driven higher to about 3.5 V and the GMLAN-Low circuit is driven lower to about 1.5 V. The differential voltage becomes approximately 2.0 (+/- 0.5) V.

Chassis High Speed GMLAN Circuit Description

The GMLAN Chassis Expansion Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for chassis components. This implementation splits message congestion between two parallel buses helping to insure timely message transmission and reception. Sometimes communication is required between the Chassis Expansion Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K17 Electronic Brake Control Module (EBCM) as the Gateway module. Since the High Speed GMLAN Chassis Expansion Bus and primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Powertrain High Speed GMLAN Circuit Description

The GMLAN Powertrain Expansion Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for Powertrain components. The bus is optional based upon feature content. Sometimes communication is required between the Powertrain Expansion Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K20 Engine Control Module (ECM) as the Gateway module. Since the High Speed GMLAN Powertrain Expansion Bus and the primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Media Oriented Systems Transport (MOST) Circuit Description

The MOST Infotainment network is a dedicated high speed multimedia streaming data bus independent from GMLAN. The MOST bus will be configured in a physical hardwired loop with each device within the bus sends and receives data on an assigned MOST addresses in a set order. Each device on the MOST bus will be required to have twisted pair copper wires (2 transmit TX, 2 receive RX, and 1 electronic control line which is a 12 V wakeup signal line). The A11 Radio is the MOST Master and will monitor the bus for vehicle configuration, Infotainment data messages and errors on the bus. The MOST initialization consists of a short 100 ms low voltage pulse on the electronic control line (or MOST control line) connected to all devices contained on the MOST ring. This wakeup message once received by each device, will first respond with a generic device response. Once these initial responses on the MOST bus are reported successfully without error to the A11 Radio, the second data request will record the MOST device addresses, their functionality requirements and capabilities within. The A11 Radio will learn this information and also record the address node sequence on the MOST bus at this point. This node address list will now be stored within the A11 Radio as the MOST bus configuration (called “Last Working MOST ID of Node 1 – 9” on scan tool data display).

When MOST receive, transmit, or control line faults are detected, transmit/receive messages will not received as expected from the wakeup request. The A11 Radio and the K74 Human Machine Interface Control Module will then perform diagnostics to isolate these MOST faults. If the MOST control line is shorted low to 0 V for excess amount of time, the A11 Radio will set a U2098 DTC and K74 Human Machine Interface Control Module will set a U0029 02 DTC. At this point the MOST bus will be unable to communicate until the shorted MOST control line is repaired.

Once the shorted MOST control line diagnostics pass, the A11 Radio will attempt to resend the initial short pulse attempts up to 3 times on the MOST control line. If the expected responses are not received, the A11 Radio continues into a failure mode setting a U0028 DTC and will continue on to send one 300 ms long pulse, which will enable the furthest upstream transmitting device to become the surrogate MOST Master in this MOST fault/diagnostic mode. When the A11 Radio receives this new MOST Master identity, the surrogate MOST master device can be identified based on scan tool data parameter “Surrogate MOST Master Node Upstream Position”. The scan tool should be used to determine the MOST bus configuration and direction by utilizing the “Last Working MOST ID of Node 1 – 9” parameters from the A11 Radio data display. When a fault is present, it will indicate the newly enabled “Surrogate MOST Master Node Upstream Position” from the A11 Radio. This will assist in determining where the MOST bus/control is at fault. The MOST device upstream from the surrogate MOST master device, transmit, receive, or control lines will be the suspect areas for diagnostics at this point. These faults can be associated with any of the MOST transmit, receive, or control line twisted copper wires or possibly an internal device fault.

The K74 Human Machine Interface Control Module will set a U0029 00 DTC when it diagnoses a MOST bus not communicating properly after one attempt. When the DTC U0029 00 is set by the K74 Human Machine Interface Control Module without the corresponding DTC U0028 from the A11 Radio, it will be an indication of an intermittent wiring/device condition.

Low Speed GMLAN Circuit Description

Low Speed GMLAN Bus is used in applications where a high data rate is not required which allows for the use of less complex components. It is typically used for operator controlled functions where the response time requirements are slower than those required for dynamic vehicle control.

The Low Speed GMLAN Serial Data Network consists of a single wire, ground referenced bus with high side voltage drive. During on road vehicle operation data symbols (1’s and 0’s) are transmitted sequentially at the normal rate of 33.3 Kbit/s. For component programming only, a special high speed data mode of 83.3 Kbit/s may be used.

Unlike the high speed dual wire networks, the single wire low speed network does not use terminating resistors at either end of the network.

The data symbols to be transmitted over the bus are represented by different voltage signals on the bus. When the Low Speed GMLAN Bus is at rest and is not being driven, there is a low signal voltage of approximately 0.2 V. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven higher to around 4.0 V or higher.

Local Interconnect Network (LIN) Circuit Description

The Local Interconnect Network (LIN) Bus consists of a single wire with a transmission rate of 10.417 Kbit/s. This bus is used to exchange information between a master control module and other smart devices which provide supporting functionality. This type of configuration does not require the capacity or speed of either a High Speed GMLAN Bus or Low Speed GMLAN Bus and is thus relatively simpler.

The data symbols (1’s and 0’s) to be transmitted are represented by different voltage levels on the communication bus. When the LIN Bus is at rest and is not being driven, the signal is in a high voltage state of approximately Vbatt. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven low to about ground (0.0 V).

Communication Enable Circuit Description

Devices on High Speed GMLAN Bus enable or disable communication based on the voltage level of the communication enable circuit. When the circuit voltage is high (around 12 V), communications are enabled. When the circuit is low, communications are disabled.

Data Link Connector (DLC)

The X84 Data Link Connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and is required to provide the following:

- Terminal 1 Low speed GMLAN communications terminal
- Terminal 4 Scan tool power ground terminal
- Terminal 5 Common signal ground terminal
- Terminal 6 High speed GMLAN serial data bus (+) terminal
- Terminal 12 Chassis high speed GMLAN serial bus (+) terminal
- Terminal 13 Chassis high speed GMLAN serial bus (-) terminal
- Terminal 14 High speed GMLAN serial data bus (-) terminal
- Terminal 16 Scan tool power, battery positive voltage terminal

Serial Data Reference

The scan tool communicates over the various buses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every device that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm (or Not Connected) for that optional device. In order to avert misdiagnoses of No Communication with a specific device, refer to *CELL Link Error - Link target cell (cell ID 148085) is invalid for this publication.* for a list of devices and the buses they communicate with. Use schematics and specific vehicle build RPO codes to determine optional devices.

Serial Data Gateway Module Description and Operation

The K56 Serial Data Gateway Module is used to handle communications between multiple GMLAN busses and functions as a gateway to isolate the secure networks from the unsecured networks. It was created to mitigate bus loading to support cyber security and new active/ advanced safety features like Limited Ability Autonomous Driving and Enhanced Collision Avoidance (if equipped). The K56 Serial Data Gateway Module is used as a frame-to-frame gateway for all functional messages.

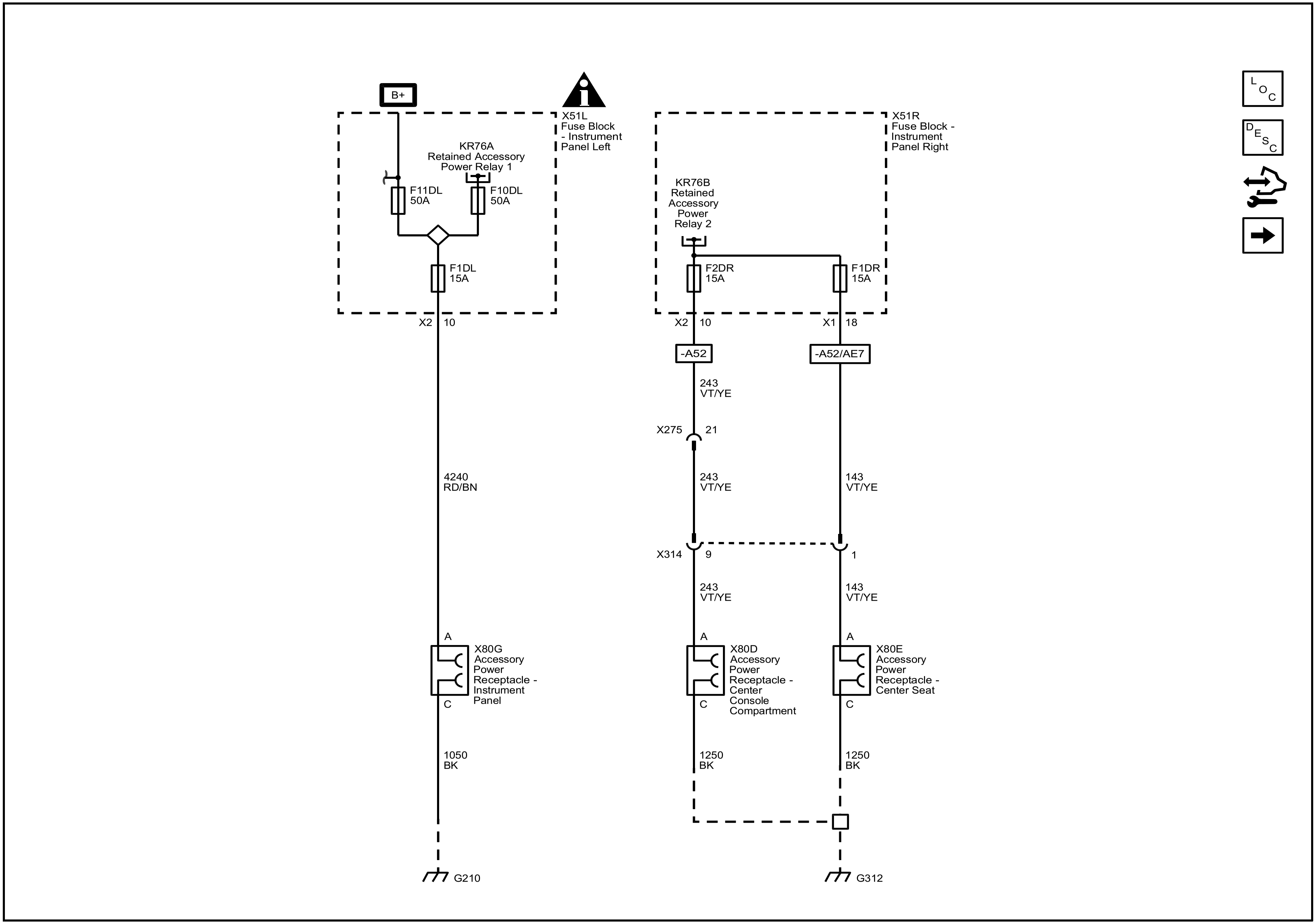
Depending on the vehicle contents, the K56 Serial Data Gateway Module is gating between primary High Speed GMLAN Bus, Gateway Expansion High Speed GMLAN Bus, Gateway Isolated High Speed GMLAN Bus, and Chassis High Speed GMLAN Bus. The K56 Serial Data Gateway Module is also gating between primary Low Speed GMLAN Bus and Gateway Isolated Low Speed GMLAN Bus.

Communication between the K56 Serial Data Gateway Module and a scan tool is done through the primary High Speed GMLAN Bus.

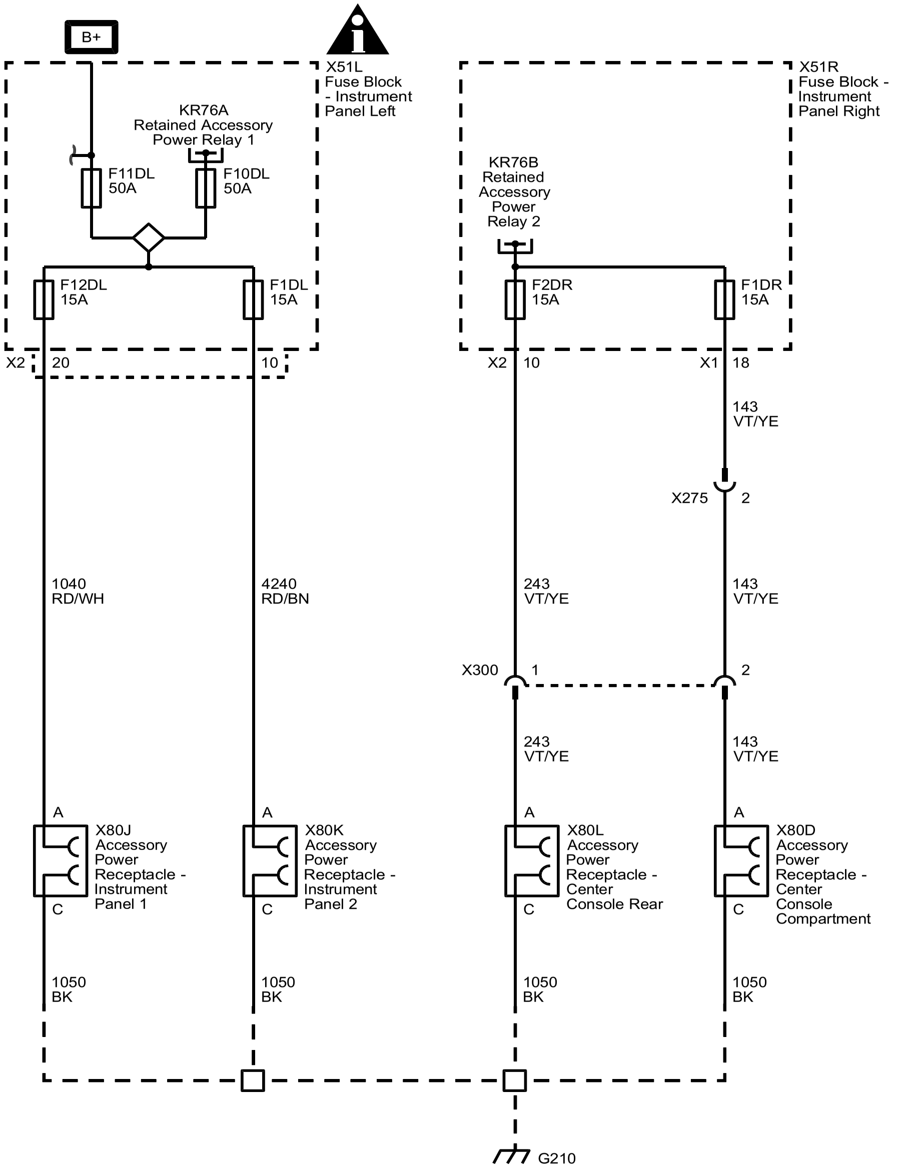
Power Outlets

Schematic and Routing Diagrams

Cigar Lighter/Power Outlet Schematics (12-Volt DC Power Outlets (without D07))

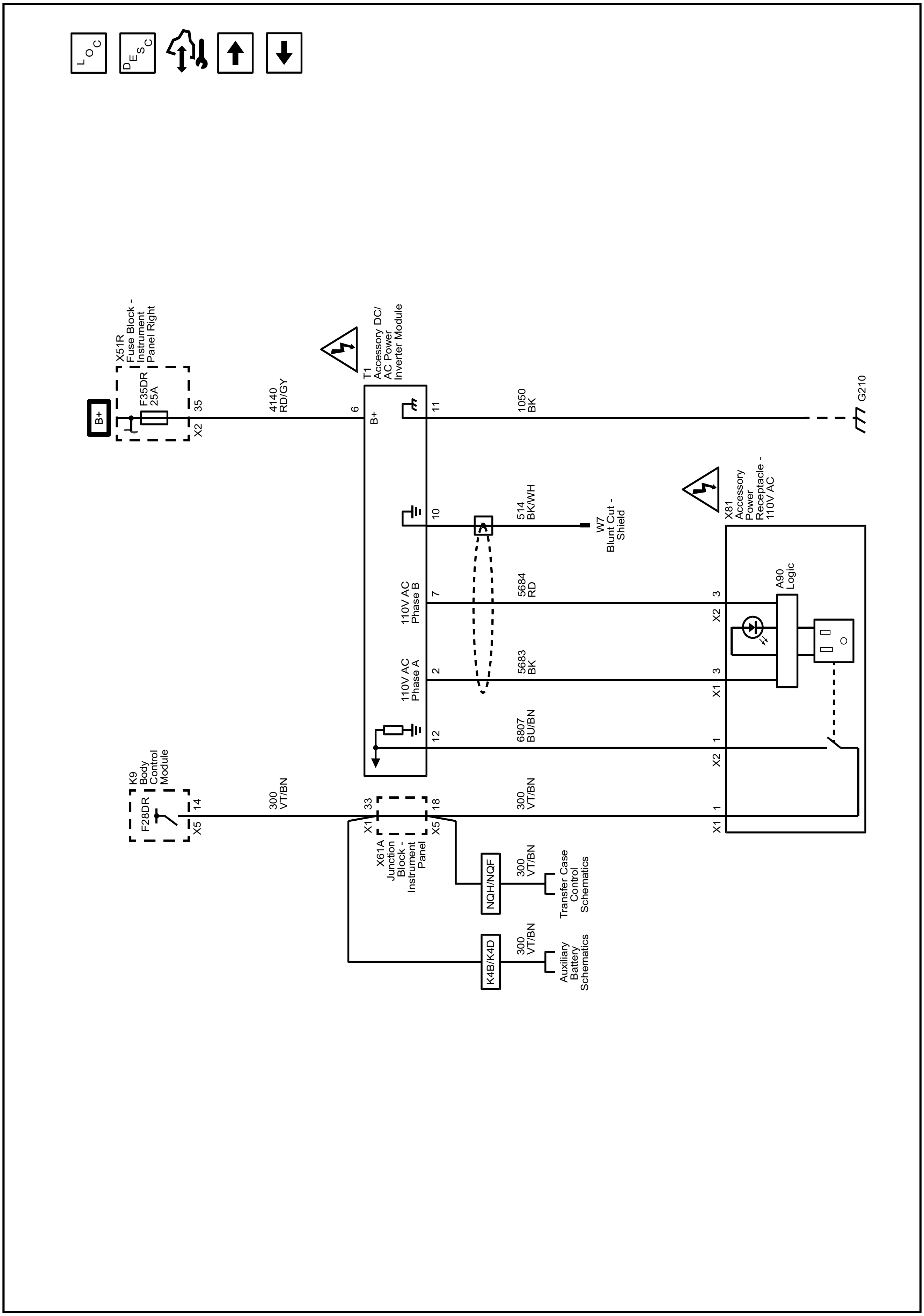

L O C
D E S C
B+
X51L
Fuse Block
- Instrument
Panel Left
KR76A
Retained Accessory
Power Relay 1
F11DL
50A
F10DL
50A
F1DL
15A
X2 10
4240
RD/BN
A
X80G
Accessory
Power
Receptacle -
Instrument
Panel
C
1050
BK
G210
X51R
Fuse Block -
Instrument
Panel Right
KR76B
Retained
Accessory
Power
Relay 2
F2DR
15A
F1DR
15A
X2 10
X1 18
-A52
-A52/AE7
243
VT/YE
X275 21
243
VT/YE
143
VT/YE
X314 9
1
243
VT/YE
143
VT/YE
A
X80D
Accessory
Power
Receptacle -
Center
Console
Compartment
C
A
X80E
Accessory
Power
Receptacle -
Center Seat
C
1250
BK
1250
BK
G312
4692662

Cigar Lighter/Power Outlet Schematics (12-Volt DC Power Outlets (D07))

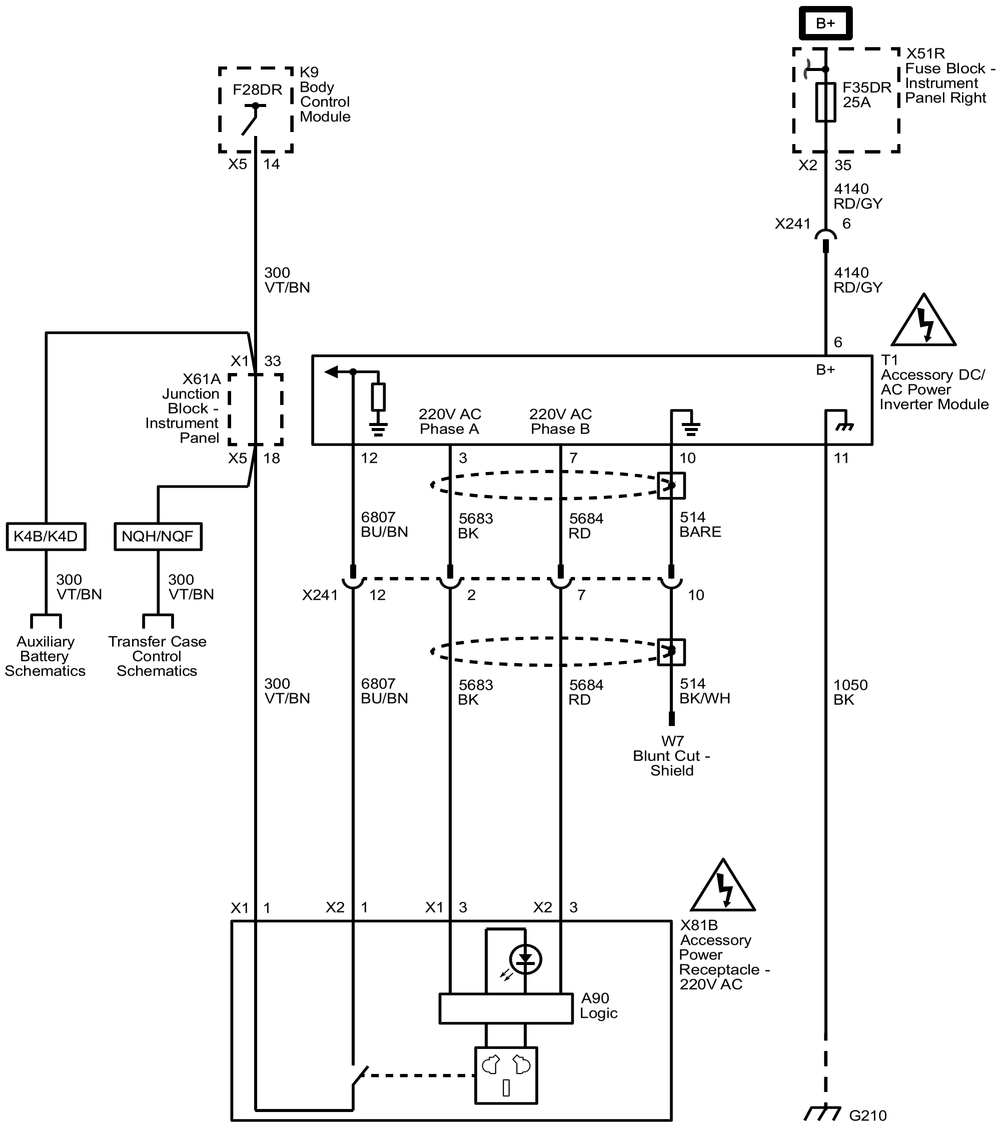

B+
X51L
Fuse Block - Instrument Panel Left
KR76A
Retained Accessory Power Relay 1
F11DL
50A
F10DL
50A
F12DL
15A
F1DL
15A
X2
20
10
1040
RD/WH
4240
RD/BN
X51R
Fuse Block - Instrument Panel Right
KR76B
Retained Accessory Power Relay 2
F2DR
15A
F1DR
15A
X2
10
X1
18
143
VT/YE
X275
2
243
VT/YE
143
VT/YE
X300
1
2
243
VT/YE
143
VT/YE
A
X80J
Accessory Power Receptacle - Instrument Panel 1
C
A
X80K
Accessory Power Receptacle - Instrument Panel 2
C
A
X80L
Accessory Power Receptacle - Center Console Rear
C
A
X80D
Accessory Power Receptacle - Center Console Compartment
C
1050
BK
1050
BK
1050
BK
1050
BK
G210

4692664

Cigar Lighter/Power Outlet Schematics (110-Volt AC Power Outlet (KI4))

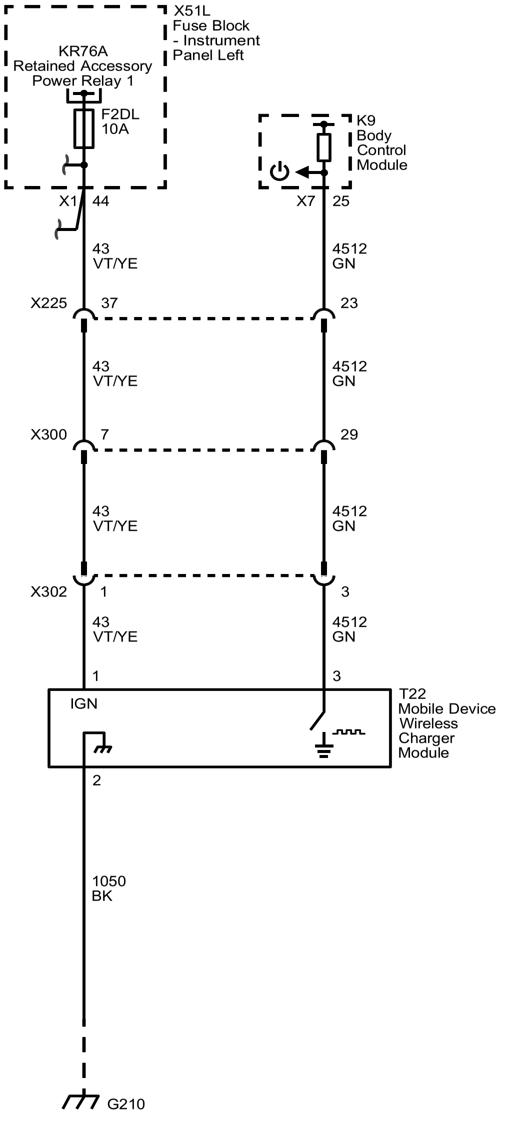

4692666
LOC
DESC
B+
X51R
Fuse Block -
Instrument
Panel Right
F35DR
25A
X2
35
4140
RD/GY
6
B+
T1
Accessory DC/
AC Power
Inverter Module
11
1050
BK
G210
10
514
BK/WH
W7
Blunt Cut -
Shield
X81
Accessory
Power
Receptacle -
110V AC
110V AC
Phase B
7
5684
RD
X2
3
A90
Logic
110V AC
Phase A
2
5683
BK
X1
3
12
6807
BU/BN
X2
1
K9
Body
Control
Module
F28DR
X5
14
300
VT/BN
33
X1
18
X5
X61A
Junction
Block -
Instrument
Panel
300
VT/BN
X1
1
NQH/NQF
300
VT/BN
Transfer Case
Control
Schematics
K4B/K4D
300
VT/BN
Auxiliary
Battery
Schematics

Cigar Lighter/Power Outlet Schematics (220-Volt AC Power Outlet (KI5))


B+
X51R
Fuse Block - Instrument Panel Right
F35DR
25A
X2 35
4140
RD/GY
X241 6
4140
RD/GY
6
B+
T1
Accessory DC/ AC Power Inverter Module
K9
Body Control Module
F28DR
X5 14
300
VT/BN
X1 33
X61A
Junction Block - Instrument Panel
X5 18
K4B/K4D
NQH/NQF
300
VT/BN
300
VT/BN
Auxiliary Battery Schematics
Transfer Case Control Schematics
220V AC Phase A
220V AC Phase B
12
3
7
10
11
6807
BU/BN
5683
BK
5684
RD
514
BARE
X241
12
2
7
10
300
VT/BN
6807
BU/BN
5683
BK
5684
RD
514
BK/WH
1050
BK
W7
Blunt Cut - Shield
X1 1
X2 1
X1 3
X2 3
X81B
Accessory Power Receptacle - 220V AC
A90
Logic
G210

4692668

Cigar Lighter/Power Outlet Schematics (Wireless Charging (K4C))


X51L
Fuse Block
- Instrument
Panel Left
KR76A
Retained Accessory
Power Relay 1
F2DL
10A
X1
44
43
VT/YE
X225
37
43
VT/YE
X300
7
43
VT/YE
X302
1
43
VT/YE
1
IGN
2
1050
BK
G210
K9
Body
Control
Module
X7
25
4512
GN
23
4512
GN
29
4512
GN
3
4512
GN
3
T22
Mobile Device
Wireless
Charger
Module
4692671

Description and Operation

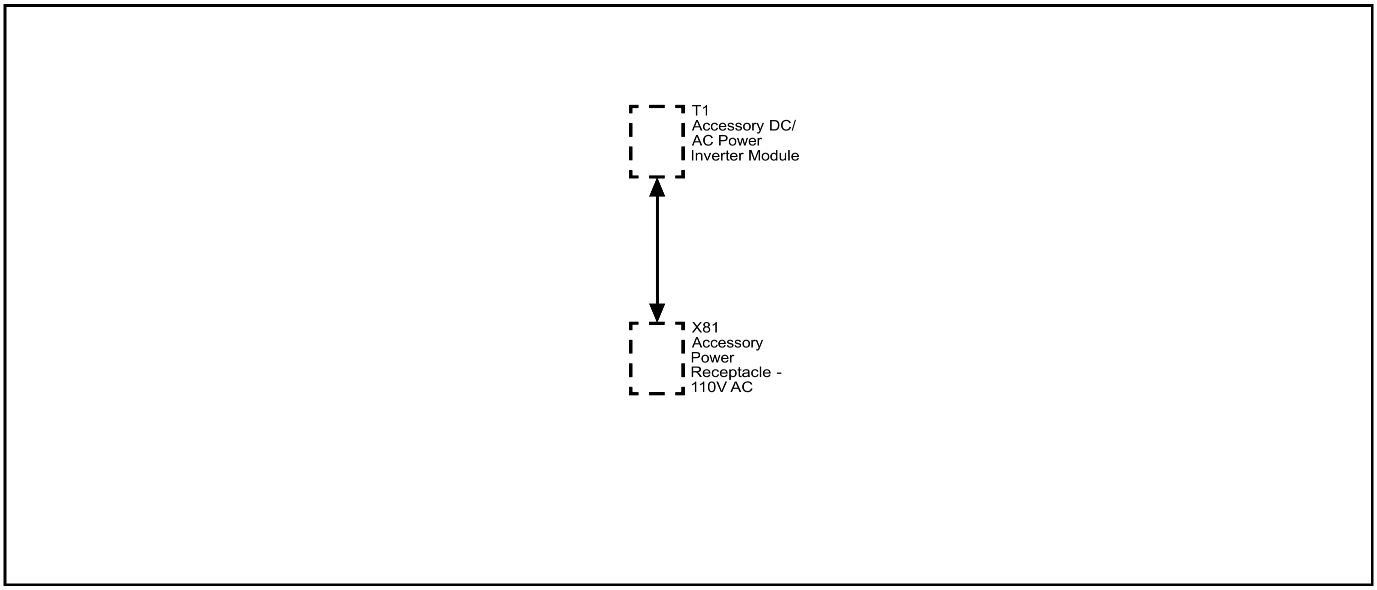
Power Outlets Description and Operation

12 Volt Power Outlet Receptacle Description and Operation

The vehicle is fitted with a 12 V accessory power receptacle. The accessory power receptacles are controlled by an ignition operated relay. The accessory power receptacles are operational when the ignition is turned to either the On or the Accessories positions. The X80J and X80K accessory power receptacles may be configured to be operational when the ignition is Off by changing the position of the 50A fuse from the F10DL position to the F11DL position in the left instrument panel fuse block.

110 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram


T1
Accessory DC/AC Power Inverter Module
X81
Accessory Power Receptacle - 110V AC
3403851

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 s delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Overload Shutdown

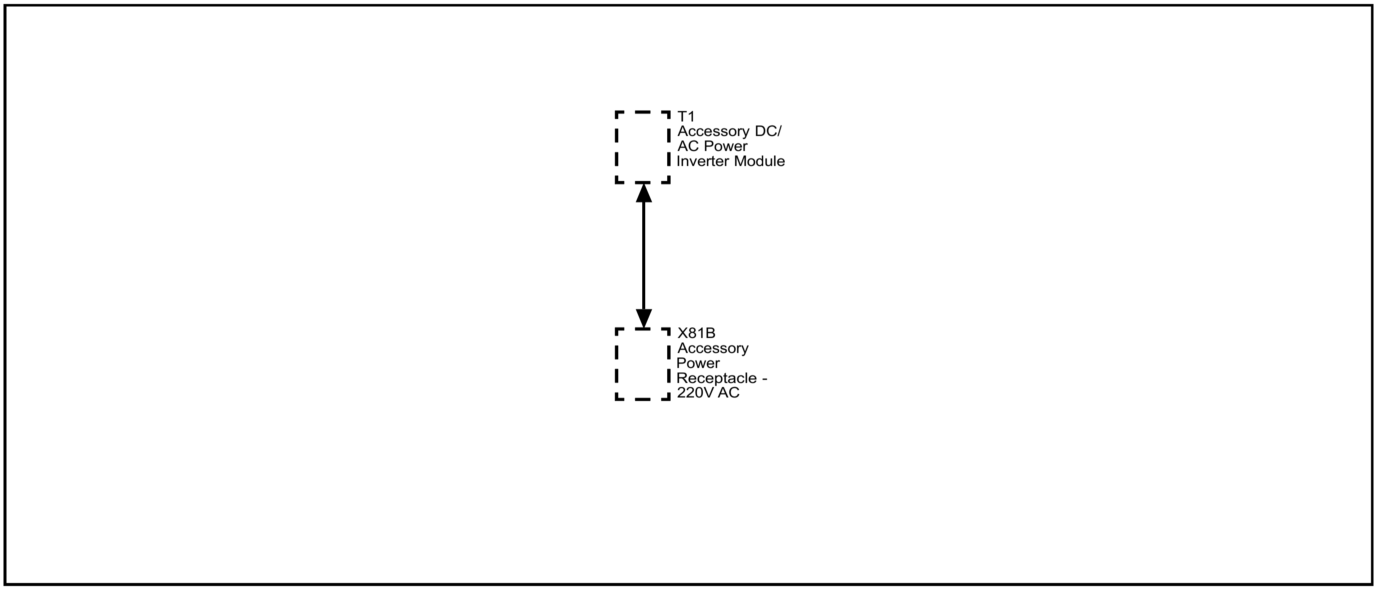
The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 s , or 2.5 A for 10 s . The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

230 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



3403853

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 220V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 220–230 V at 50 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 220V AC provides the usual connection for AC powered devices.

230 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 220V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 220V AC, the normally open switch in the accessory power receptacle – 220V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 220V AC switch, the inverter module begins to supply 220–230 V AC to the accessory power receptacle – 220V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

230 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 230 V circuit for a short to vehicle chassis ground. If a 230 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

230 Volt Power Outlet Receptacle Overload Shutdown

The accessory AC/DC power control module will turn OFF if the current in the 230 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

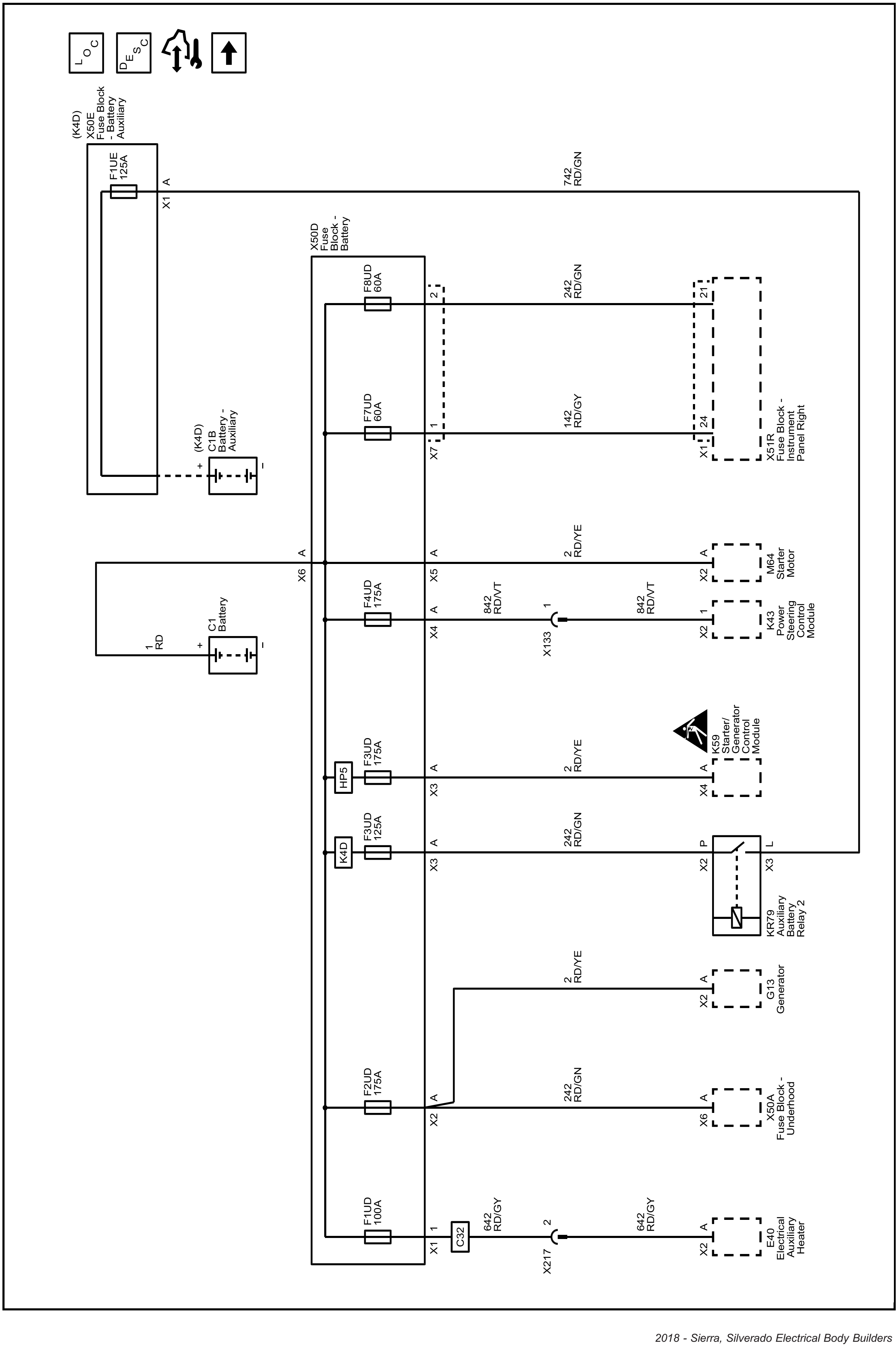
230 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the accessory power receptacle – 220V AC, and then plugged into the accessory power receptacle – 220V AC.

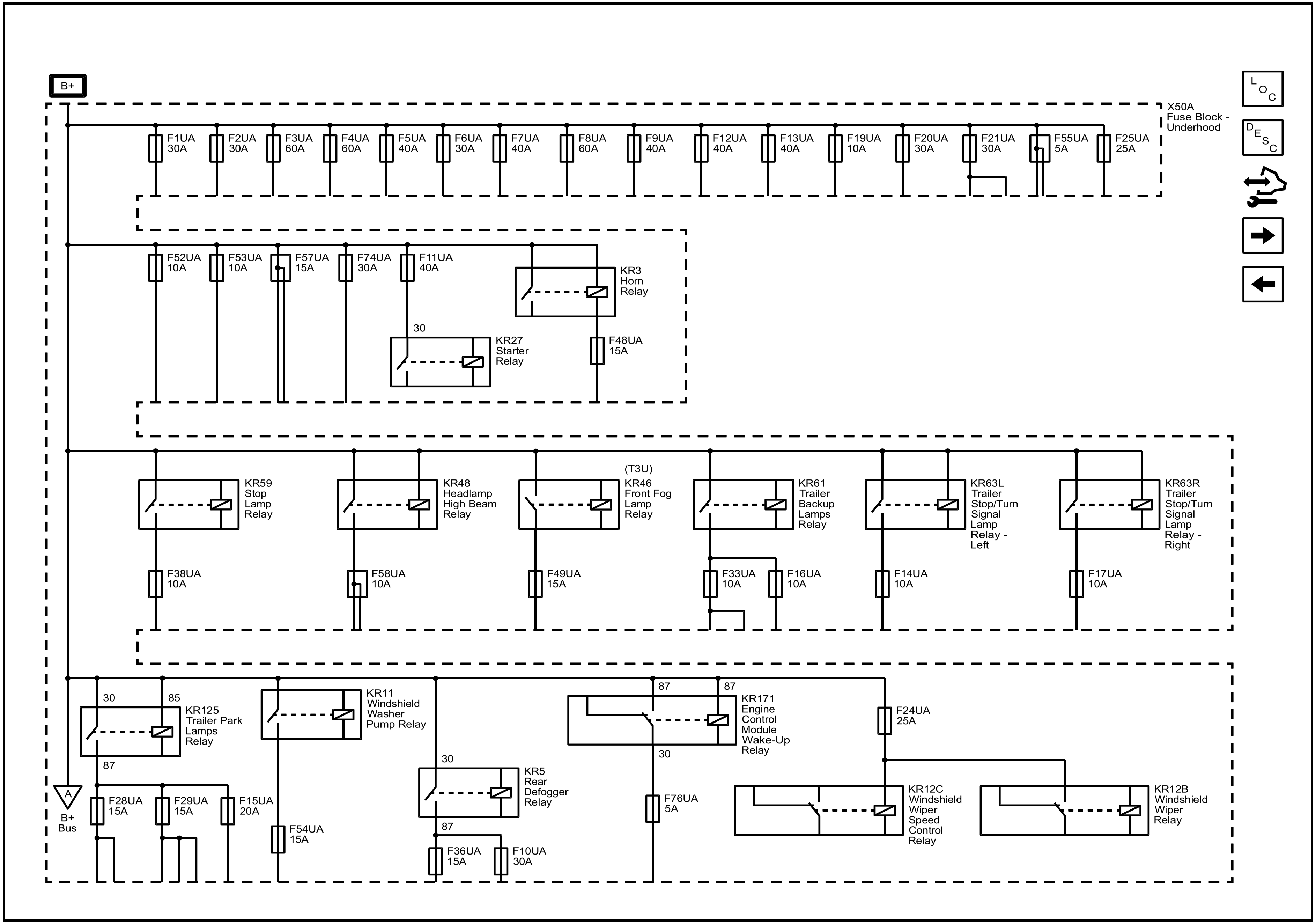
Wiring Systems and Power Management

Schematic and Routing Diagrams

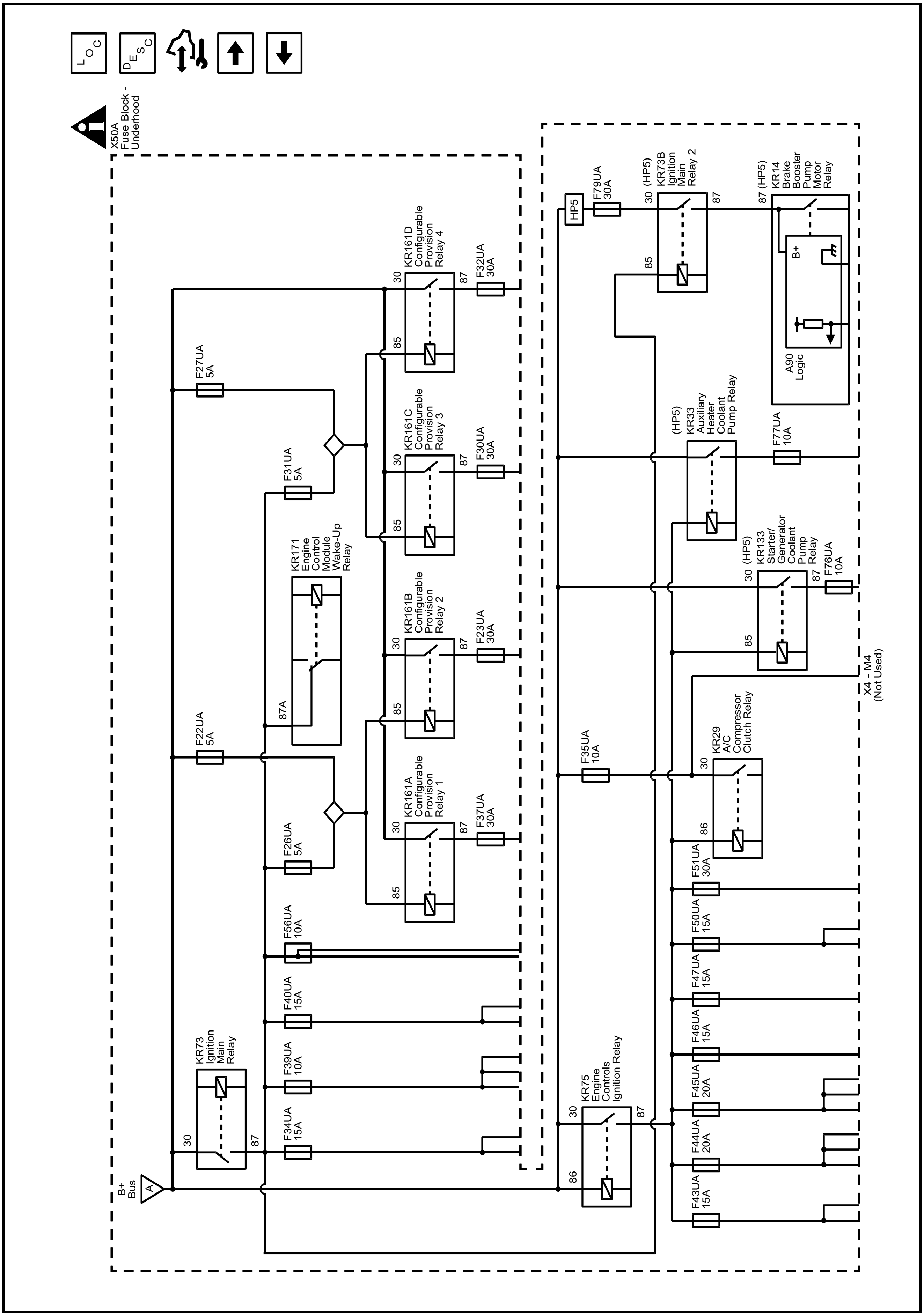
Power Distribution Schematics (1500) (X50D Fuse Block - Battery and X50E Fuse Block - Battery Auxiliary (1500))


4692672
L O C
D E S C
(K4D) X50E Fuse Block - Battery Auxiliary
F1UE 125A
X1 A
742 RD/GN
(K4D) C1B Battery - Auxiliary
+
-
X50D Fuse Block - Battery
F8UD 60A
F7UD 60A
X7 1 2
242 RD/GN
142 RD/GY
X1 24 21
X51R Fuse Block - Instrument Panel Right
X6 A
X5 A
2 RD/YE
X2 A
M64 Starter Motor
F4UD 175A
X4 A
842 RD/VT
X133 1
X2 1
K43 Power Steering Control Module
C1 Battery
1 RD
HP5
F3UD 175A
X3 A
2 RD/YE
X4 A
K59 Starter/ Generator Control Module
K4D
F3UD 125A
X3 A
242 RD/GN
X2 P
X3 L
KR79 Auxiliary Battery Relay 2
2 RD/YE
X2 A
G13 Generator
F2UD 175A
X2 A
242 RD/GN
X6 A
X50A Fuse Block - Underhood
F1UD 100A
X1 1
C32
642 RD/GY
X217 2
642 RD/GY
X2 A
E40 Electrical Auxiliary Heater

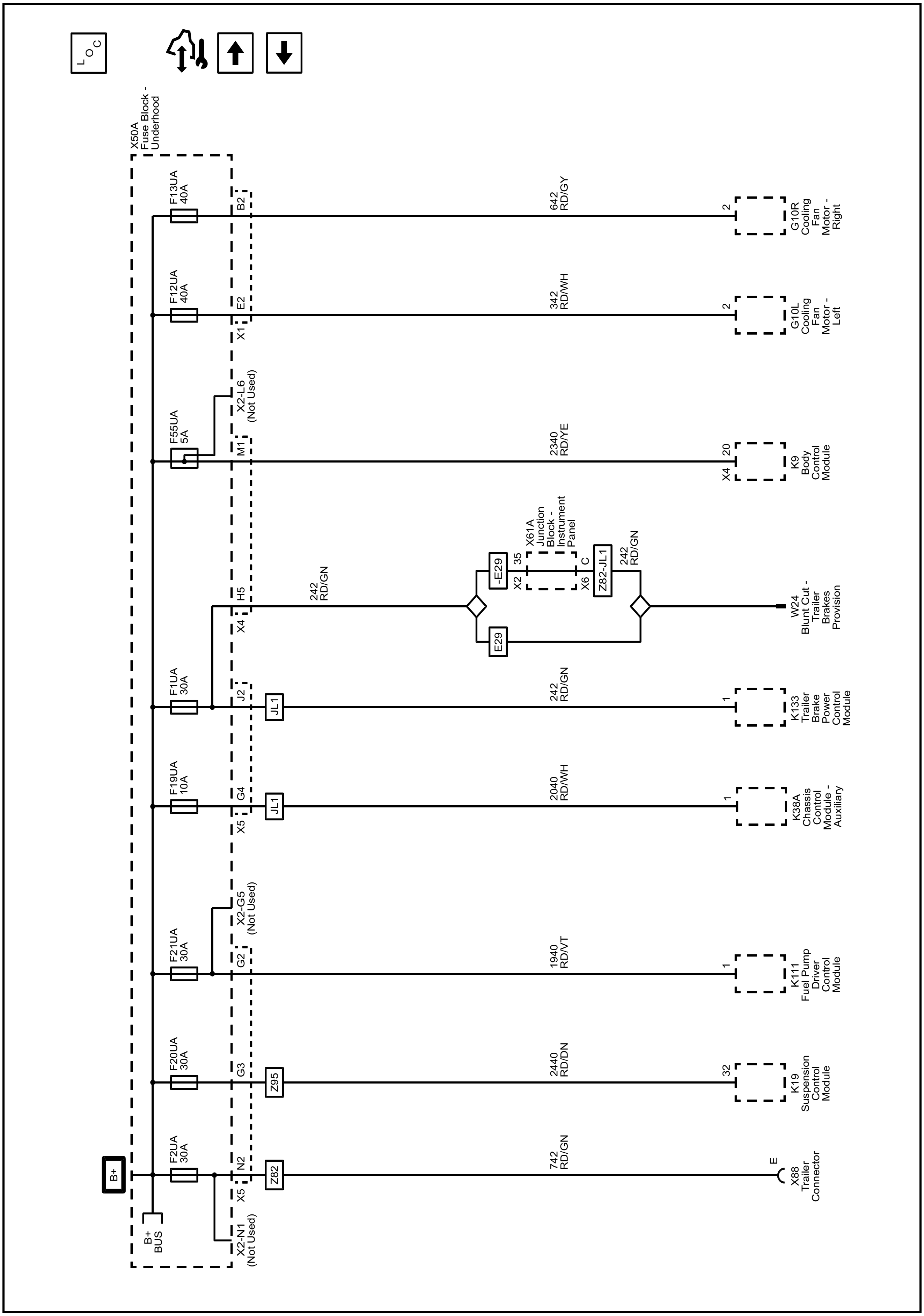
Power Distribution Schematics (1500) (B+ Bus X50A Fuse Block - Underhood 1 of 2 (1500))


B+
X50A
Fuse Block -
Underhood
LOC
DESC
F1UA 30A
F2UA 30A
F3UA 60A
F4UA 60A
F5UA 40A
F6UA 30A
F7UA 40A
F8UA 60A
F9UA 40A
F12UA 40A
F13UA 40A
F19UA 10A
F20UA 30A
F21UA 30A
F55UA 5A
F25UA 25A
F52UA 10A
F53UA 10A
F57UA 15A
F74UA 30A
F11UA 40A
30
KR27 Starter Relay
KR3 Horn Relay
F48UA 15A
KR59 Stop Lamp Relay
KR48 Headlamp High Beam Relay
(T3U)
KR46 Front Fog Lamp Relay
KR61 Trailer Backup Lamps Relay
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F38UA 10A
F58UA 10A
F49UA 15A
F33UA 10A
F16UA 10A
F14UA 10A
F17UA 10A
30
85
KR125 Trailer Park Lamps Relay
87
A
B+ Bus
F28UA 15A
F29UA 15A
F15UA 20A
KR11 Windshield Washer Pump Relay
F54UA 15A
30
KR5 Rear Defogger Relay
87
F36UA 15A
F10UA 30A
87
87
KR171 Engine Control Module Wake-Up Relay
30
F76UA 5A
F24UA 25A
KR12C Windshield Wiper Speed Control Relay
KR12B Windshield Wiper Relay
4692676

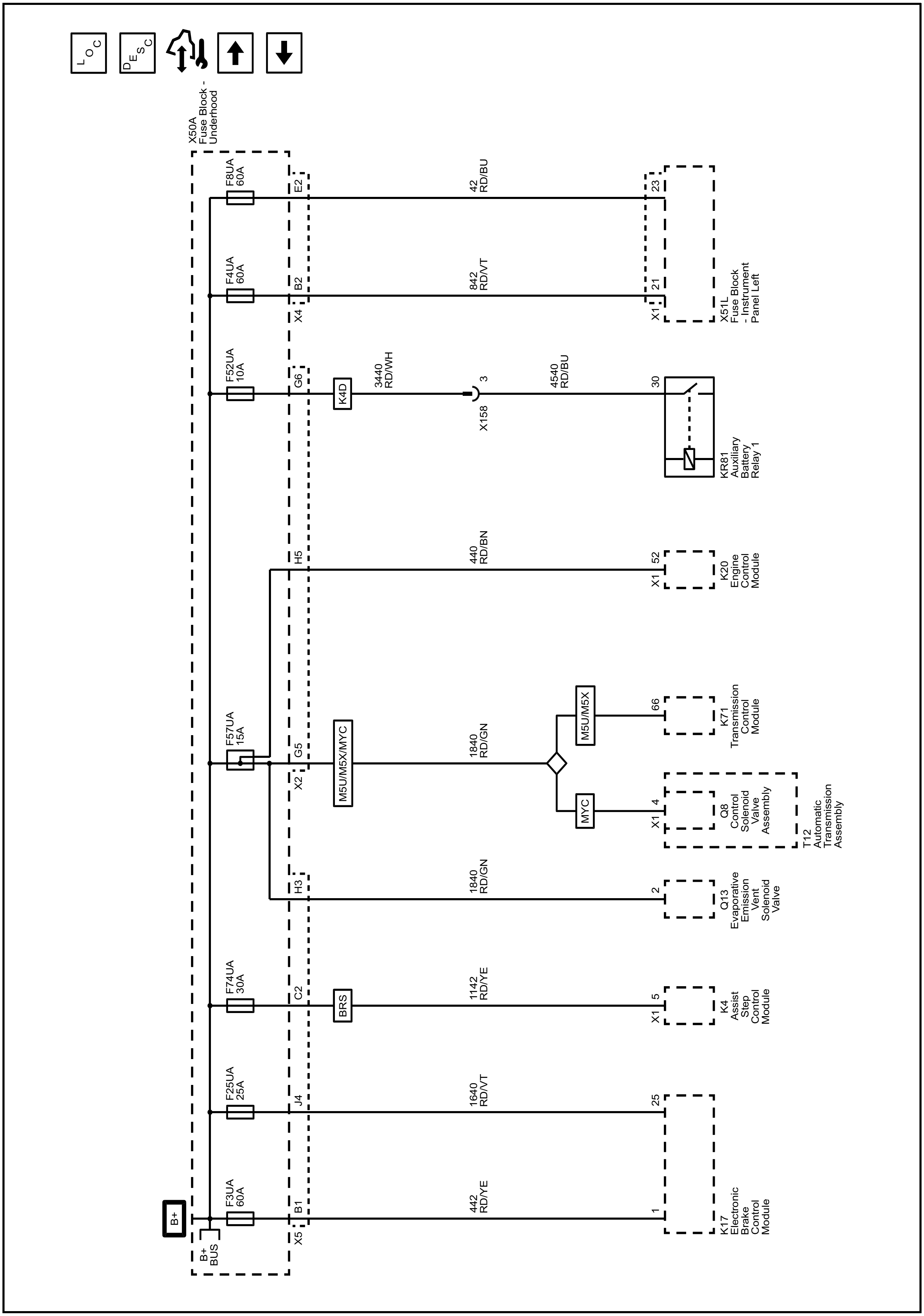
Power Distribution Schematics (1500) (B+ Bus X50A Fuse Block - Underhood 2 of 2 (1500))


4692677
LOC
DESC
X50A Fuse Block - Underhood
B+ Bus
A
KR73 Ignition Main Relay
30
87
F34UA 15A
F39UA 10A
F40UA 15A
F56UA 10A
F26UA 5A
F22UA 5A
87A
KR171 Engine Control Module Wake-Up Relay
F31UA 5A
F27UA 5A
KR161A Configurable Provision Relay 1
KR161B Configurable Provision Relay 2
KR161C Configurable Provision Relay 3
KR161D Configurable Provision Relay 4
85
F37UA 30A
F23UA 30A
F30UA 30A
F32UA 30A
KR75 Engine Controls Ignition Relay
86
F35UA 10A
HP5
F79UA 30A
(HP5) KR73B Ignition Main Relay 2
(HP5) KR14 Brake Booster Pump Motor Relay
B+
A90 Logic
(HP5) KR33 Auxiliary Heater Coolant Pump Relay
F77UA 10A
(HP5) KR133 Starter/Generator Coolant Pump Relay
F76UA 10A
X4 - M4 (Not Used)
KR29 A/C Compressor Clutch Relay
F51UA 30A
F50UA 15A
F47UA 15A
F46UA 15A
F45UA 20A
F44UA 20A
F43UA 15A

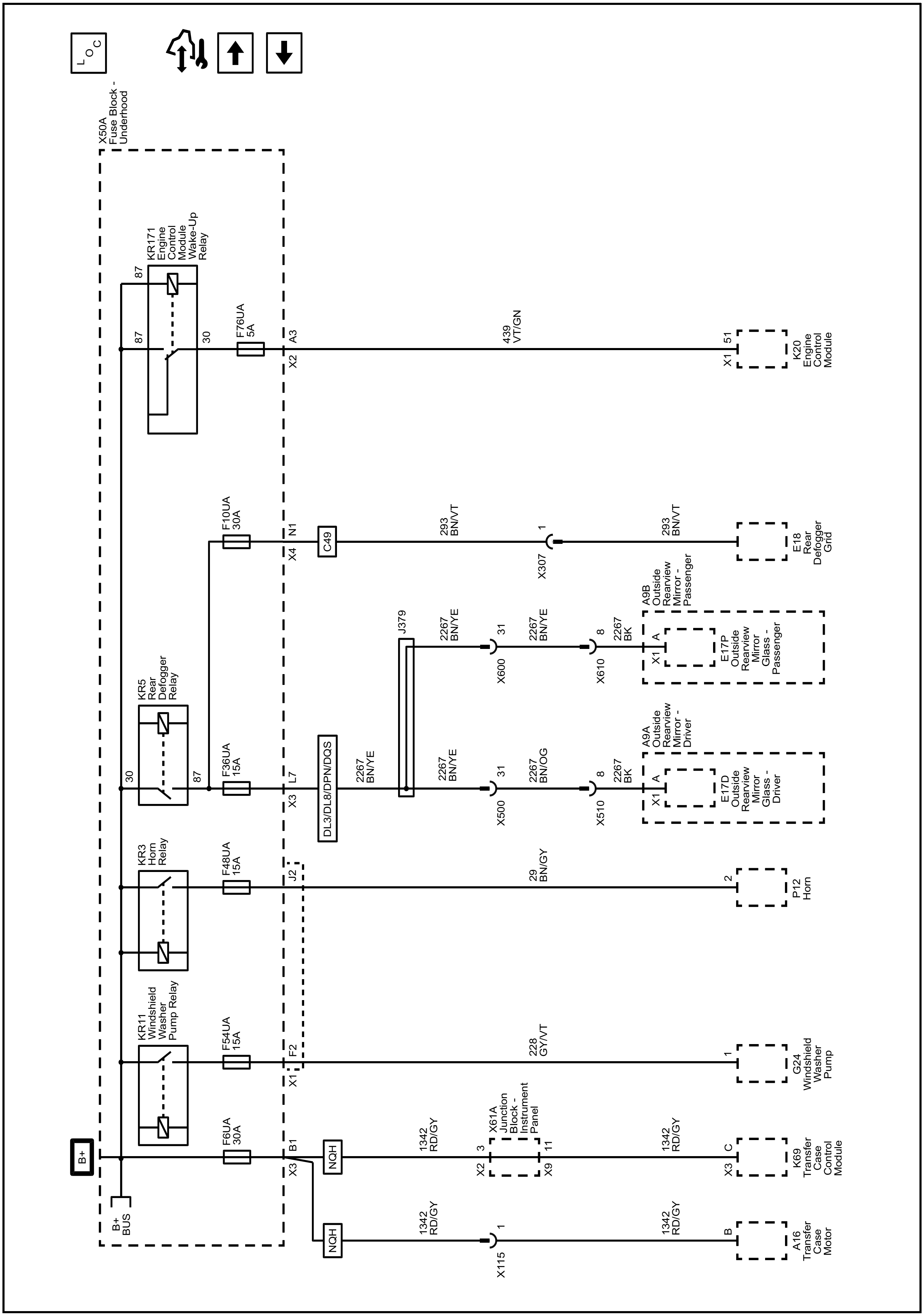
Power Distribution Schematics (1500) (F1UA, F2UA, F12UA, F13UA, F19UA, F20UA, F21UA and F55UA Fuses (1500))


4692678
LOC
X50A Fuse Block - Underhood
B+
B+ BUS
F13UA 40A
B2
642 RD/GY
2
G10R Cooling Fan Motor - Right
F12UA 40A
E2
X1
342 RD/WH
2
G10L Cooling Fan Motor - Left
X2-L6 (Not Used)
F55UA 5A
M1
2340 RD/YE
X4 20
K9 Body Control Module
H5
X4
242 RD/GN
E29
-E29
X2 35
X61A Junction Block - Instrument Panel
C X6
Z82-JL1
242 RD/GN
W24 Blunt Cut - Trailer Brakes Provision
F1UA 30A
J2
JL1
242 RD/GN
1
K133 Trailer Brake Power Control Module
F19UA 10A
G4
X5
JL1
2040 RD/WH
1
K38A Chassis Control Module - Auxiliary
X2-G5 (Not Used)
F21UA 30A
G2
1940 RD/VT
1
K111 Fuel Pump Driver Control Module
F20UA 30A
G3
Z95
2440 RD/DN
32
K19 Suspension Control Module
F2UA 30A
N2
X5
Z82
742 RD/GN
E
X88 Trailer Connector
X2-N1 (Not Used)

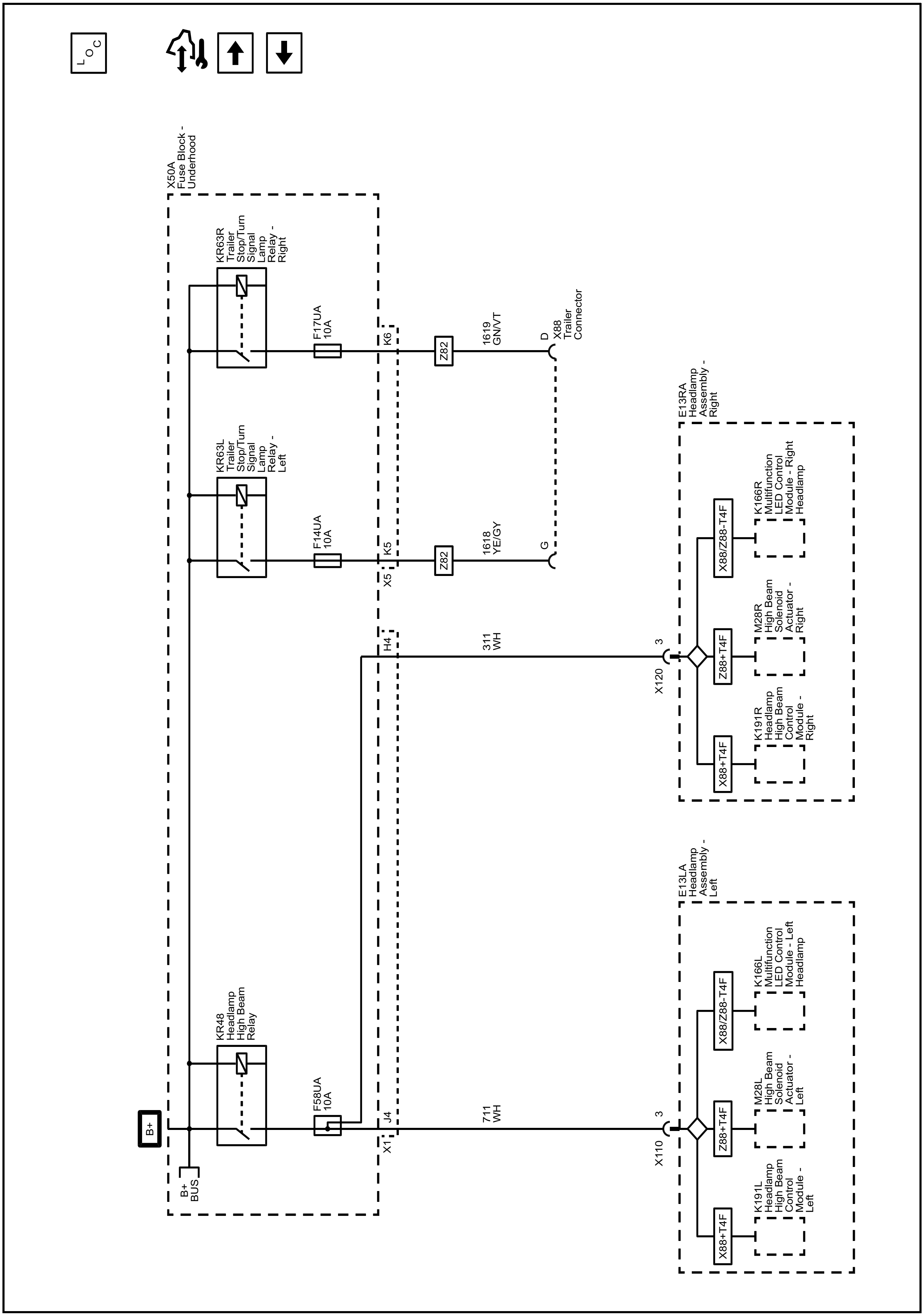
Power Distribution Schematics (1500) (F3UA, F4UA, F8UA, F25UA, F52UA, F57UA, and F74UA Fuses (1500))


4692679
LOC
DESC
X50A Fuse Block - Underhood
B+
B+ BUS
F8UA 60A
E2
42 RD/BU
23
F4UA 60A
B2
X4
842 RD/VT
21
X1
X51L Fuse Block - Instrument Panel Left
F52UA 10A
G6
K4D
3440 RD/WH
3
X158
4540 RD/BU
30
KR81 Auxiliary Battery Relay 1
H5
440 RD/BN
52
X1
K20 Engine Control Module
F57UA 15A
G5
X2
M5U/M5X/MYC
1840 RD/GN
M5U/M5X
66
K71 Transmission Control Module
MYC
4
X1
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
H3
1840 RD/GN
2
Q13 Evaporative Emission Vent Solenoid Valve
F74UA 30A
C2
BRS
1142 RD/YE
5
X1
K4 Assist Step Control Module
F25UA 25A
J4
1640 RD/VT
25
F3UA 60A
B1
X5
442 RD/YE
1
K17 Electronic Brake Control Module

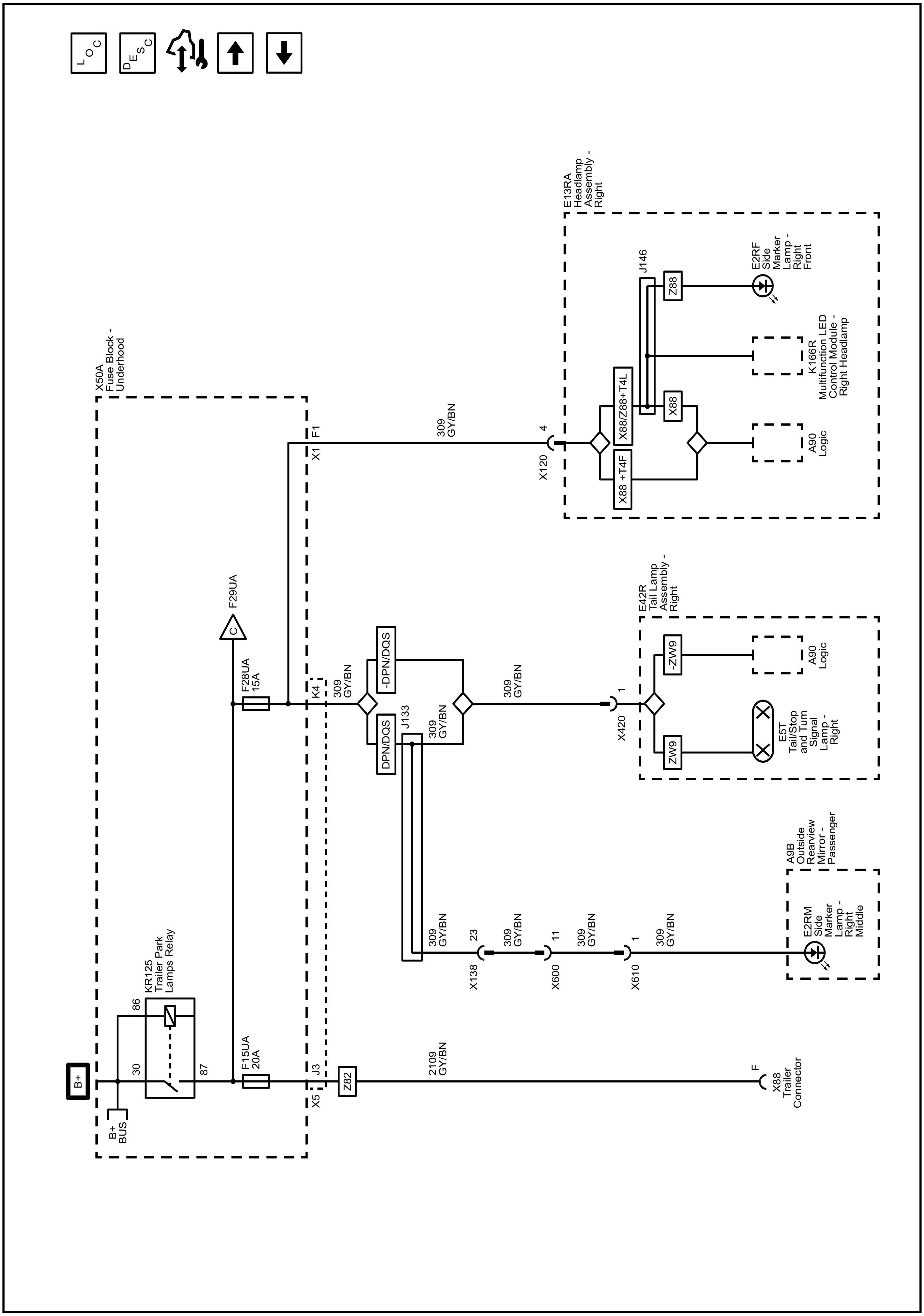
Power Distribution Schematics (1500) (F6UA, F10UA, F36UA, F48UA and F54UA Fuses (1500))


4692682
L O C
B+
B+ BUS
X50A Fuse Block - Underhood
KR171 Engine Control Module Wake-Up Relay
87
87
30
F76UA 5A
X2 A3
439 VT/GN
X1 51
K20 Engine Control Module
KR5 Rear Defogger Relay
30
87
F10UA 30A
X4 N1
C49
293 BN/VT
X307 1
293 BN/VT
E18 Rear Defogger Grid
F36UA 15A
X3 L7
DL3/DL8/DPN/DQS
2267 BN/YE
J379
2267 BN/YE
X600 31
2267 BN/YE
X610 8
2267 BK
A9B Outside Rearview Mirror - Passenger
X1 A
E17P Outside Rearview Mirror Glass - Passenger
2267 BN/YE
X500 31
2267 BN/OG
X510 8
2267 BK
A9A Outside Rearview Mirror - Driver
X1 A
E17D Outside Rearview Mirror Glass - Driver
KR3 Horn Relay
F48UA 15A
J2
29 BN/GY
2
P12 Horn
KR11 Windshield Washer Pump Relay
F54UA 15A
X1 F2
228 GY/VT
1
G24 Windshield Washer Pump
F6UA 30A
X3 B1
NQH
1342 RD/GY
X61A Junction Block - Instrument Panel
X2 3
X9 11
1342 RD/GY
X3 C
K69 Transfer Case Control Module
NQH
1342 RD/GY
X115 1
1342 RD/GY
B
A16 Transfer Case Motor

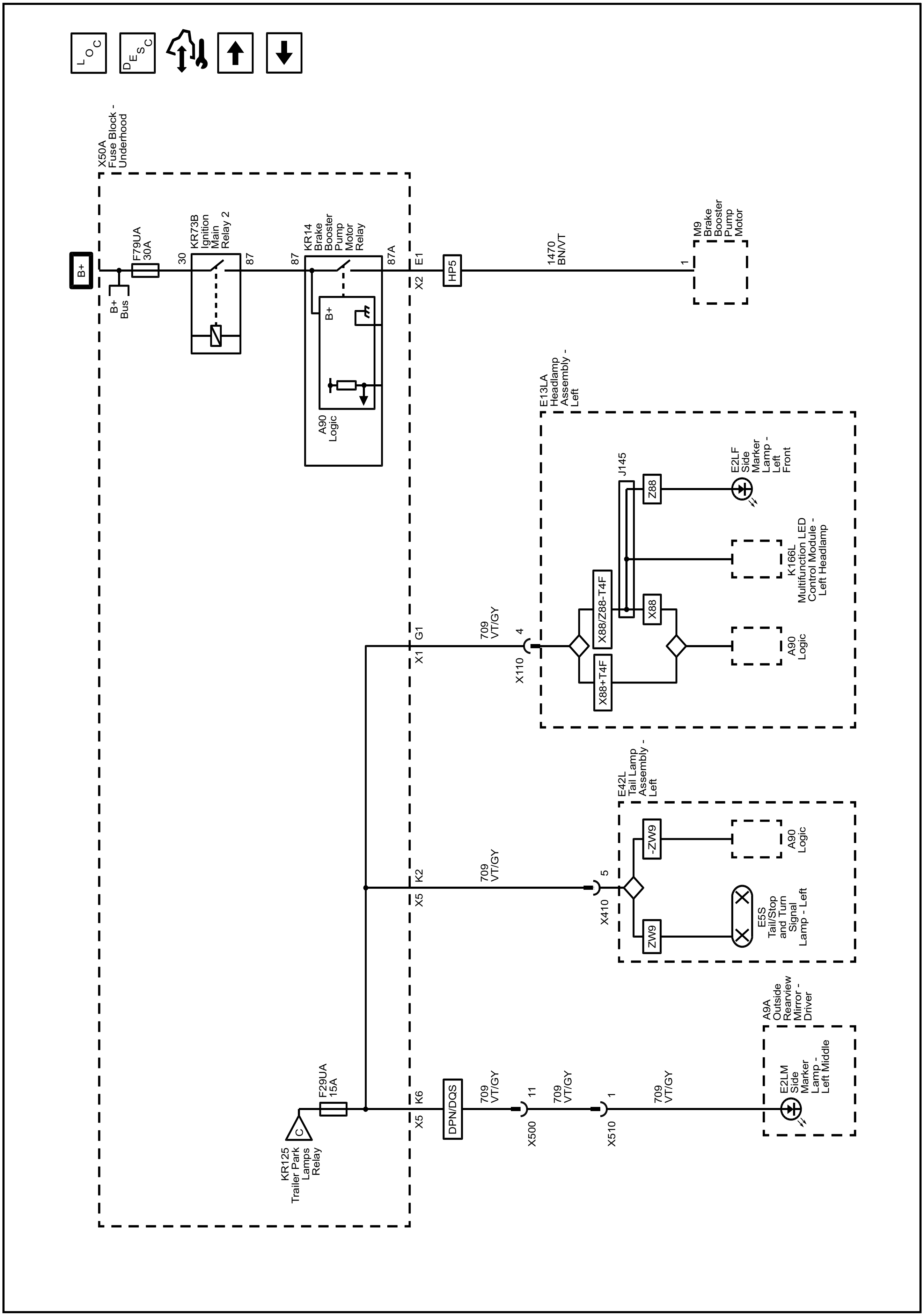
Power Distribution Schematics (1500) (F14UA, F17UA and F58UA Fuses (1500))


4692683
LOC
X50A Fuse Block - Underhood
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
KR48 Headlamp High Beam Relay
B+
B+ BUS
F17UA 10A
F14UA 10A
F58UA 10A
K6
K5
X5
H4
J4
X1
Z82
Z82
1619 GN/VT
1618 YE/GY
311 WH
711 WH
D
G
X88 Trailer Connector
3
X120
3
X110
E13RA Headlamp Assembly - Right
E13LA Headlamp Assembly - Left
X88/Z88-T4F
Z88+T4F
X88+T4F
K166R Multifunction LED Control Module - Right Headlamp
M28R High Beam Solenoid Actuator - Right
K191R Headlamp High Beam Control Module - Right
X88/Z88-T4F
Z88+T4F
X88+T4F
K166L Multifunction LED Control Module - Left Headlamp
M28L High Beam Solenoid Actuator - Left
K191L Headlamp High Beam Control Module - Left

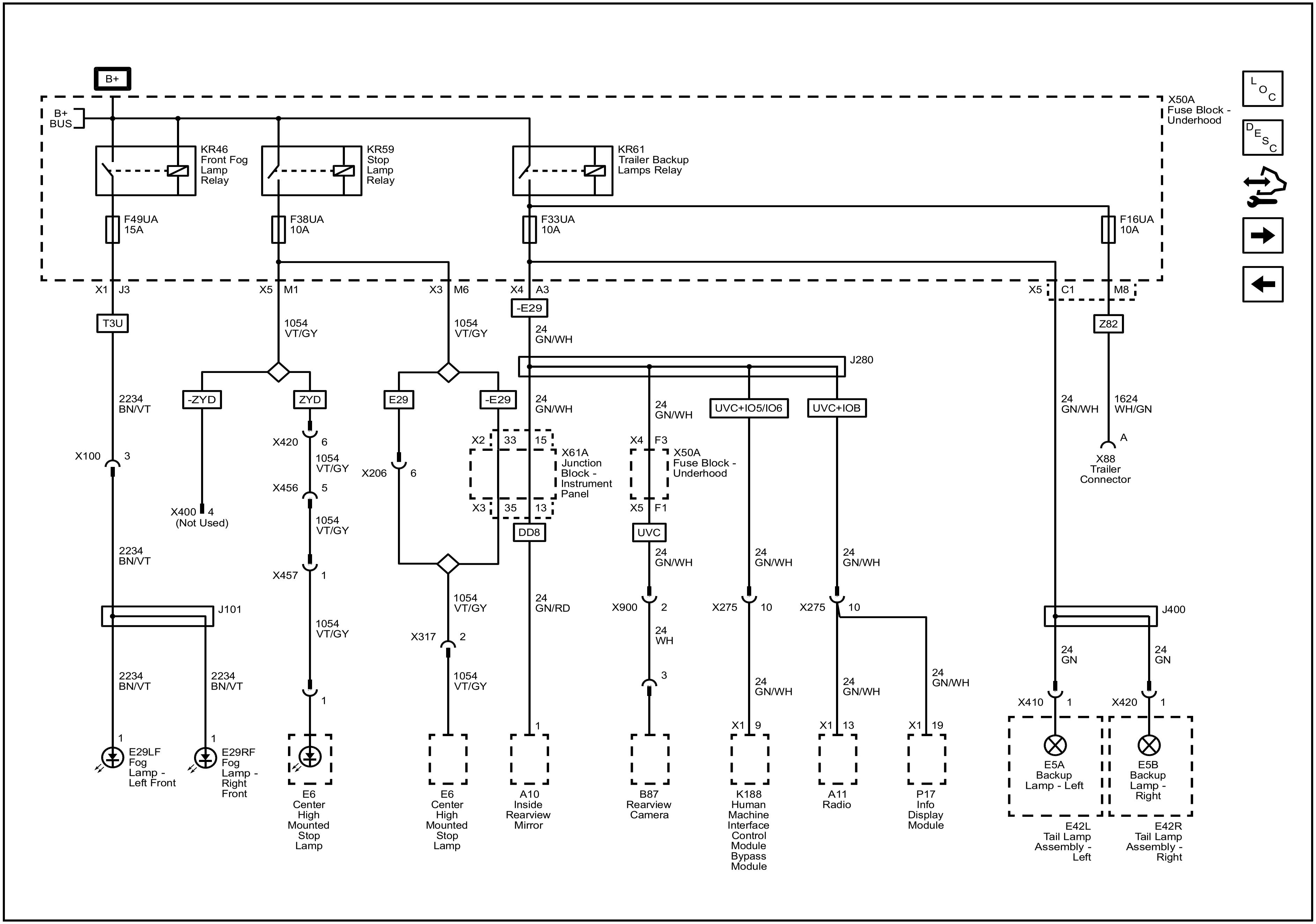
Power Distribution Schematics (1500) (F15UA and F28UA Fuses (1500))


4692685
L O C
D E S C
B+
B+ BUS
X50A Fuse Block - Underhood
KR125 Trailer Park Lamps Relay
86
30
87
F15UA 20A
F28UA 15A
F29UA
C
X1 F1
K4
J3
X5
Z82
2109 GY/BN
F
X88 Trailer Connector
309 GY/BN
-DPN/DQS
DPN/DQS
J133
X138 23
X600 11
X610 1
X420 1
X120 4
E13RA Headlamp Assembly - Right
X88/Z88+T4L
X88 +T4F
X88
Z88
J146
E2RF Side Marker Lamp - Right Front
K166R Multifunction LED Control Module - Right Headlamp
A90 Logic
E42R Tail Lamp Assembly - Right
-ZW9
ZW9
E5T Tail/Stop and Turn Signal Lamp - Right
A9B Outside Rearview Mirror - Passenger
E2RM Side Marker Lamp - Right Middle

Power Distribution Schematics (1500) (F29UA Fuse (1500))

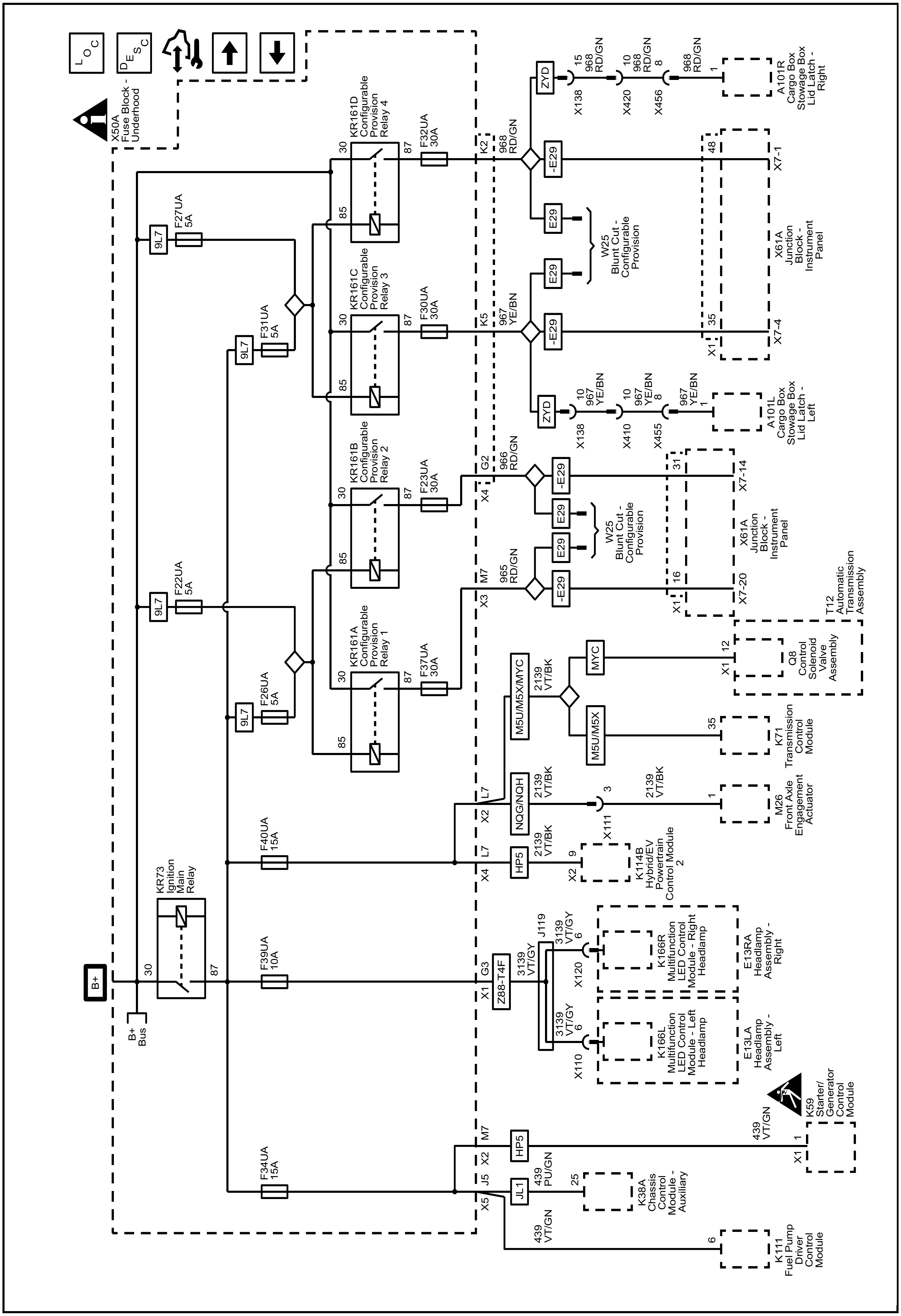

4692686
LOC
DESC
X50A Fuse Block - Underhood
B+
B+ Bus
F79UA 30A
30
KR73B Ignition Main Relay 2
87
87
KR14 Brake Booster Pump Motor Relay
87A
B+
A90 Logic
E1
X2
HP5
1470 BN/VT
1
M9 Brake Booster Pump Motor
E13LA Headlamp Assembly - Left
J145
Z88
E2LF Side Marker Lamp - Left Front
K166L Multifunction LED Control Module - Left Headlamp
X88/Z88-T4F
X88
X88+T4F
A90 Logic
G1
X1
709 VT/GY
4
X110
E42L Tail Lamp Assembly - Left
-ZW9
A90 Logic
K2
X5
709 VT/GY
5
X410
ZW9
E5S Tail/Stop and Turn Signal Lamp - Left
A9A Outside Rearview Mirror - Driver
E2LM Side Marker Lamp - Left Middle
C
KR125 Trailer Park Lamps Relay
F29UA 15A
K6
X5
DPN/DQS
709 VT/GY
11
X500
709 VT/GY
1
X510
709 VT/GY

Power Distribution Schematics (1500) (F16UA, F33UA, F38UA and F49UA Fuses (1500))

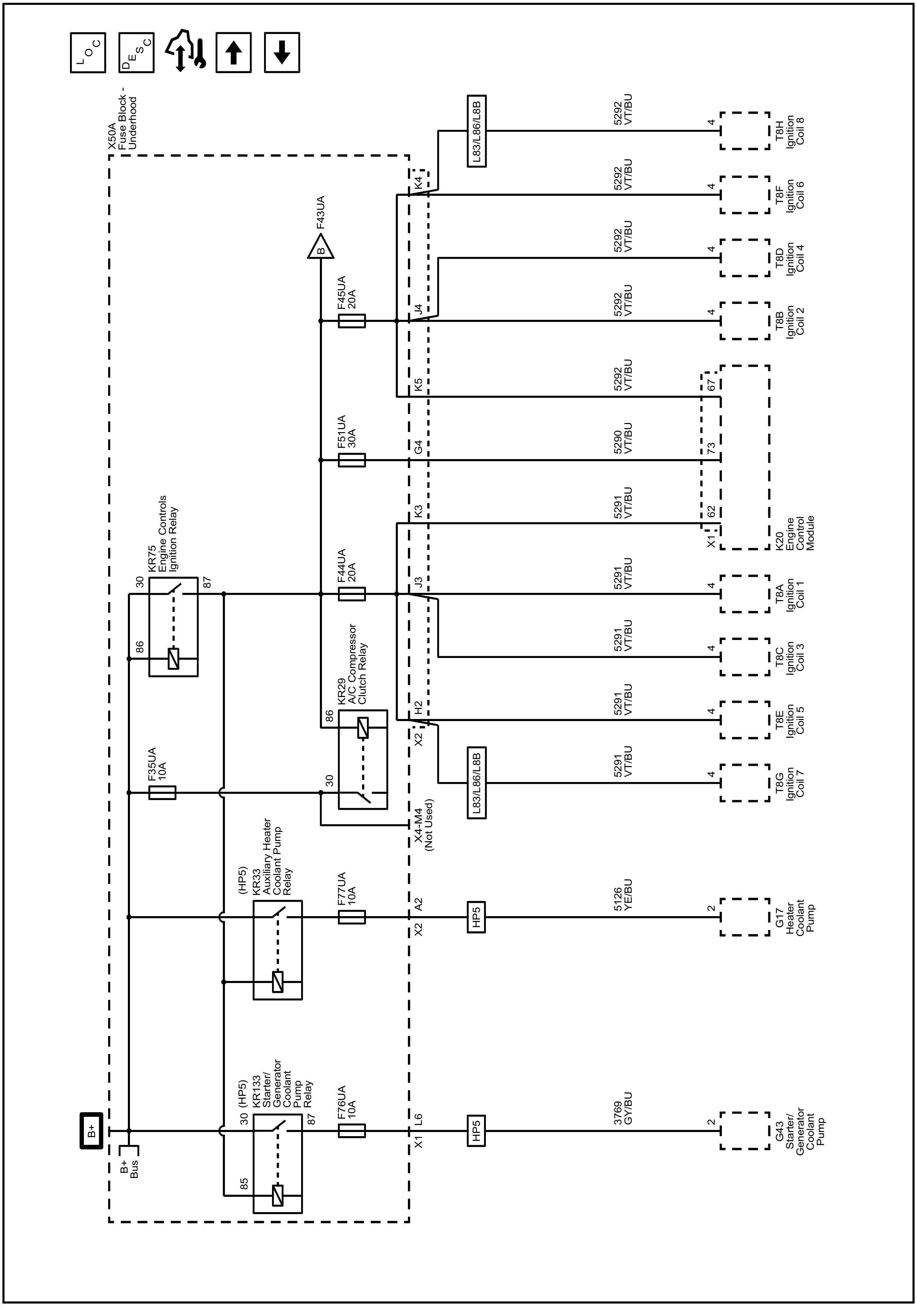

B+
B+ BUS
X50A Fuse Block - Underhood
KR46 Front Fog Lamp Relay
KR59 Stop Lamp Relay
KR61 Trailer Backup Lamps Relay
F49UA 15A
F38UA 10A
F33UA 10A
F16UA 10A
X1 J3
X5 M1
X3 M6
X4 A3
X5 C1
M8
T3U
-E29
Z82
1054 VT/GY
24 GN/WH
J280
2234 BN/VT
-ZYD
ZYD
E29
-E29
UVC+IO5/IO6
UVC+IOB
1624 WH/GN
X100 3
X420 6
X456 5
X206 6
X2 33 15
X61A Junction Block - Instrument Panel
X3 35 13
X4 F3
X50A Fuse Block - Underhood
X5 F1
A
X88 Trailer Connector
X400 4 (Not Used)
DD8
UVC
X457 1
24 GN/RD
X900 2
X275 10
X275 10
J101
J400
X317 2
24 WH
3
24 GN
X410 1
X420 1
1
1
1
1
X1 9
X1 13
X1 19
E29LF Fog Lamp - Left Front
E29RF Fog Lamp - Right Front
E6 Center High Mounted Stop Lamp
E6 Center High Mounted Stop Lamp
A10 Inside Rearview Mirror
B87 Rearview Camera
K188 Human Machine Interface Control Module Bypass Module
A11 Radio
P17 Info Display Module
E5A Backup Lamp - Left
E5B Backup Lamp - Right
E42L Tail Lamp Assembly - Left
E42R Tail Lamp Assembly - Right
L O C
D E S C

4692687

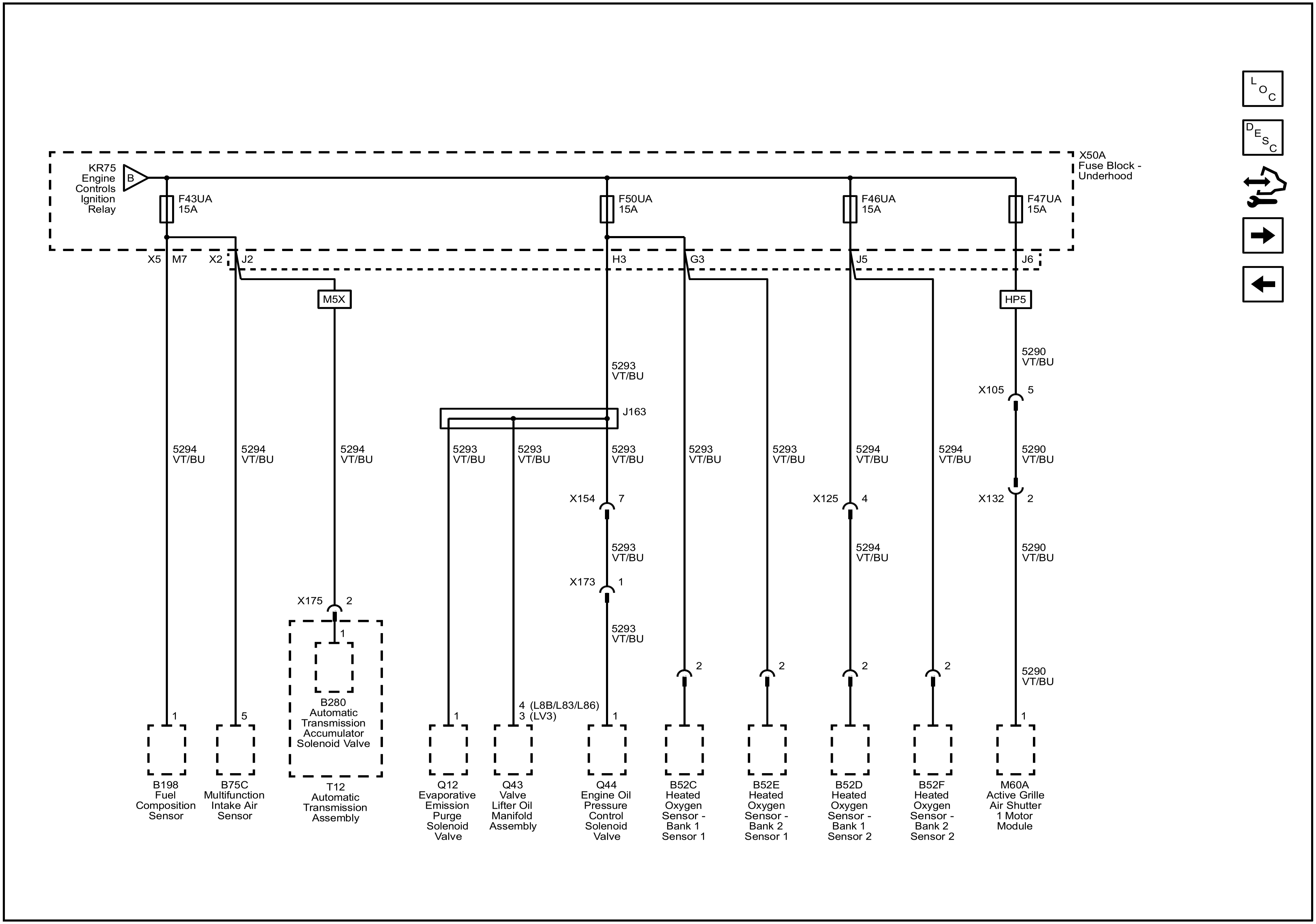
Power Distribution Schematics (1500) (F22UA, F23UA, F26UA, F27UA, F30UA, F31UA, F32UA, F34UA, F37UA and F40UA Fuses (1500))


4692690
X50A Fuse Block - Underhood
B+
B+ Bus
KR73 Ignition Main Relay
30
87
85
9L7
F27UA 5A
F31UA 5A
F22UA 5A
F26UA 5A
F40UA 15A
F39UA 10A
F34UA 15A
KR161D Configurable Provision Relay 4
KR161C Configurable Provision Relay 3
KR161B Configurable Provision Relay 2
KR161A Configurable Provision Relay 1
F32UA 30A
F30UA 30A
F23UA 30A
F37UA 30A
K2
K5
G2
M7
X4
X3
L7
X2
X1
G3
J5
X5
968 RD/GN
967 YE/BN
966 RD/GN
965 RD/GN
ZYD
-E29
E29
W25 Blunt Cut - Configurable Provision
X138
X420
X456
X410
X455
15
10
8
1
A101R Cargo Box Stowage Box Lid Latch - Right
A101L Cargo Box Stowage Box Lid Latch - Left
48
35
31
16
X7-1
X7-4
X7-14
X7-20
X61A Junction Block - Instrument Panel
T12 Automatic Transmission Assembly
M5U/M5X/MYC
MYC
M5U/M5X
2139 VT/BK
12
Q8 Control Solenoid Valve Assembly
K71 Transmission Control Module
NQG/NQH
X111
3
M26 Front Axle Engagement Actuator
HP5
9
K114B Hybrid/EV Powertrain Control Module 2
Z88-T4F
3139 VT/GY
J119
6
X120
X110
K166R Multifunction LED Control Module - Right Headlamp
E13RA Headlamp Assembly - Right
K166L Multifunction LED Control Module - Left Headlamp
E13LA Headlamp Assembly - Left
439 VT/GN
K59 Starter/ Generator Control Module
JL1
439 PU/GN
25
K38A Chassis Control Module - Auxiliary
K111 Fuel Pump Driver Control Module

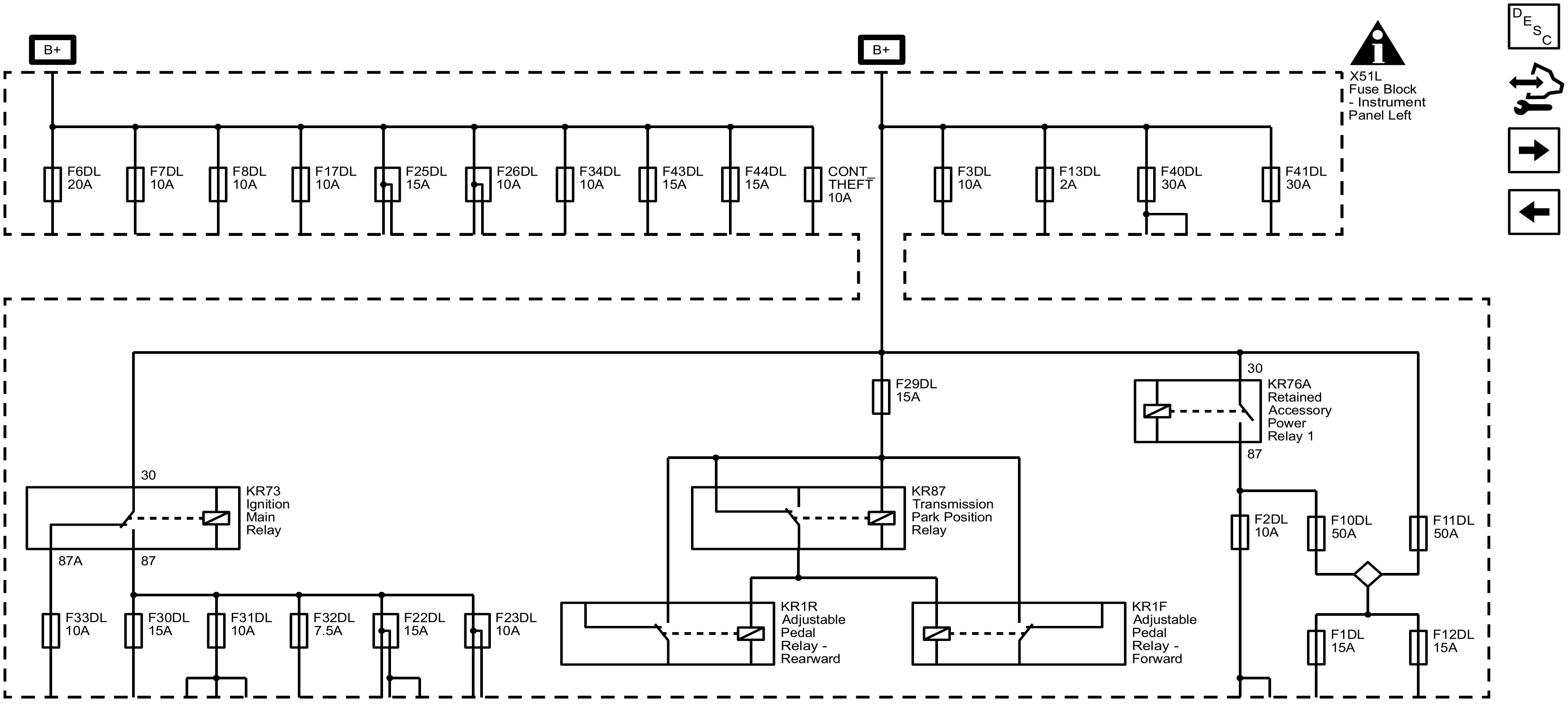
Power Distribution Schematics (1500) (F35UA, F44UA, F45UA and F51UA Fuses (1500))


4692691
LOC
DESC
X50A Fuse Block - Underhood
B+
B+ Bus
30 (HP5) KR133 Starter/Generator Coolant Pump Relay
85
87
F76UA 10A
X1 L6
HP5
3769 GY/BU
2
G43 Starter/Generator Coolant Pump
(HP5) KR33 Auxiliary Heater Coolant Pump Relay
F77UA 10A
X2 A2
HP5
5126 YE/BU
2
G17 Heater Coolant Pump
F35UA 10A
30
86
KR29 A/C Compressor Clutch Relay
X4-M4 (Not Used)
KR75 Engine Controls Ignition Relay
30
86
87
F44UA 20A
F51UA 30A
F45UA 20A
B
F43UA
X2 H2
J3
K3
G4
K5
J4
K4
L83/L86/L8B
L83/L86/L8B
5291 VT/BU
5291 VT/BU
5291 VT/BU
5291 VT/BU
5291 VT/BU
5290 VT/BU
5292 VT/BU
5292 VT/BU
5292 VT/BU
5292 VT/BU
5292 VT/BU
4
T8G Ignition Coil 7
T8E Ignition Coil 5
T8C Ignition Coil 3
T8A Ignition Coil 1
X1 62
73
67
K20 Engine Control Module
T8B Ignition Coil 2
T8D Ignition Coil 4
T8F Ignition Coil 6
T8H Ignition Coil 8

Power Distribution Schematics (1500) (F43UA, F46UA and F50UA Fuses (1500))

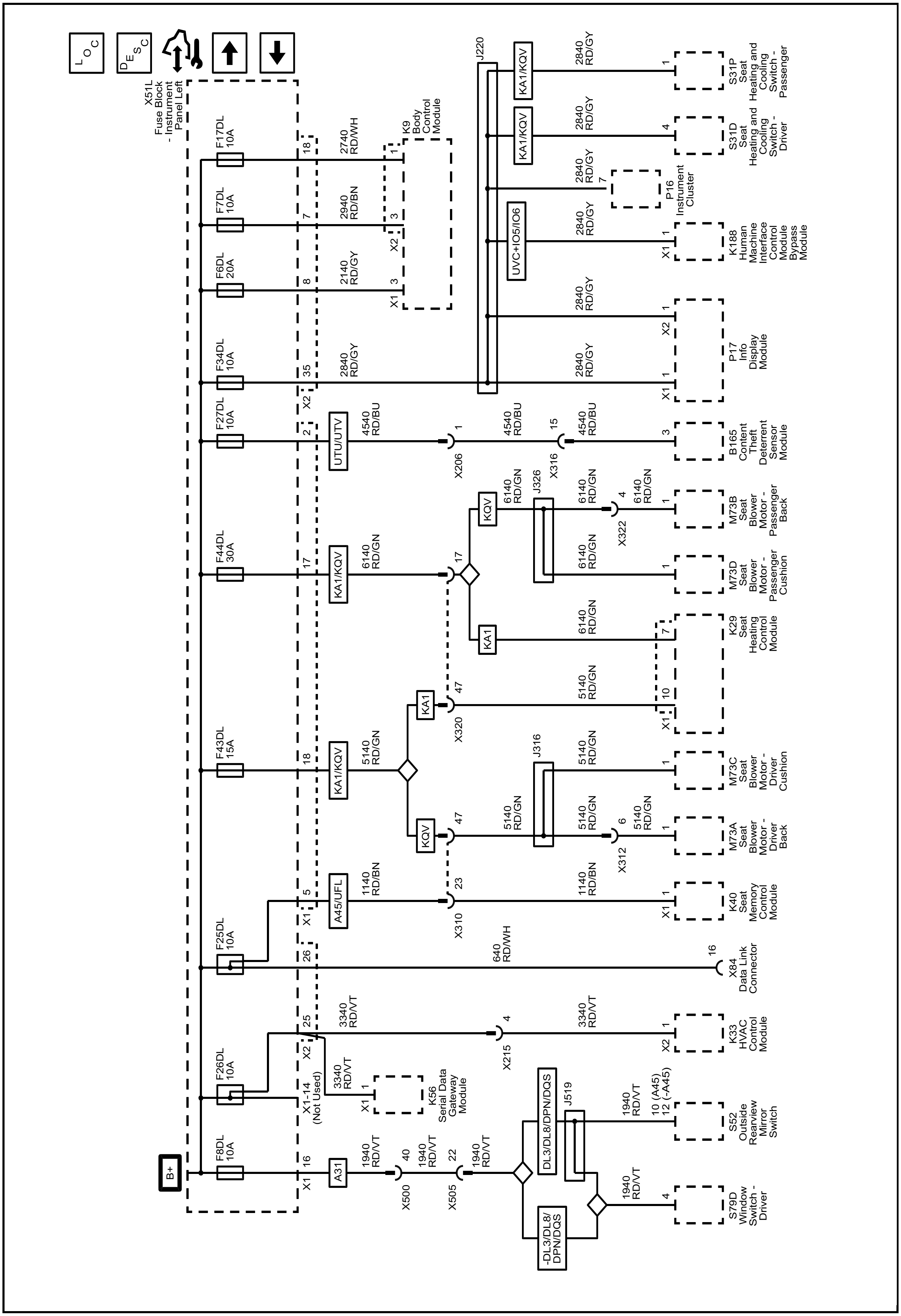

L O C
D E S C
X50A
Fuse Block -
Underhood
KR75
Engine
Controls
Ignition
Relay
B
F43UA
15A
F50UA
15A
F46UA
15A
F47UA
15A
X5
M7
X2
J2
H3
G3
J5
J6
M5X
HP5
5290
VT/BU
X105
5
5293
VT/BU
J163
5294
VT/BU
5293
VT/BU
X154
7
X125
4
X132
2
X173
1
X175
2
1
B280
Automatic
Transmission
Accumulator
Solenoid Valve
T12
Automatic
Transmission
Assembly
4 (L8B/L83/L86)
3 (LV3)
B198
Fuel
Composition
Sensor
B75C
Multifunction
Intake Air
Sensor
Q12
Evaporative
Emission
Purge
Solenoid
Valve
Q43
Valve
Lifter Oil
Manifold
Assembly
Q44
Engine Oil
Pressure
Control
Solenoid
Valve
B52C
Heated
Oxygen
Sensor -
Bank 1
Sensor 1
B52E
Heated
Oxygen
Sensor -
Bank 2
Sensor 1
B52D
Heated
Oxygen
Sensor -
Bank 1
Sensor 2
B52F
Heated
Oxygen
Sensor -
Bank 2
Sensor 2
M60A
Active Grille
Air Shutter
1 Motor
Module
4692692

Power Distribution Schematics (1500) (B+ Bus X51L Fuse Block - Instrument Panel Left (1500))

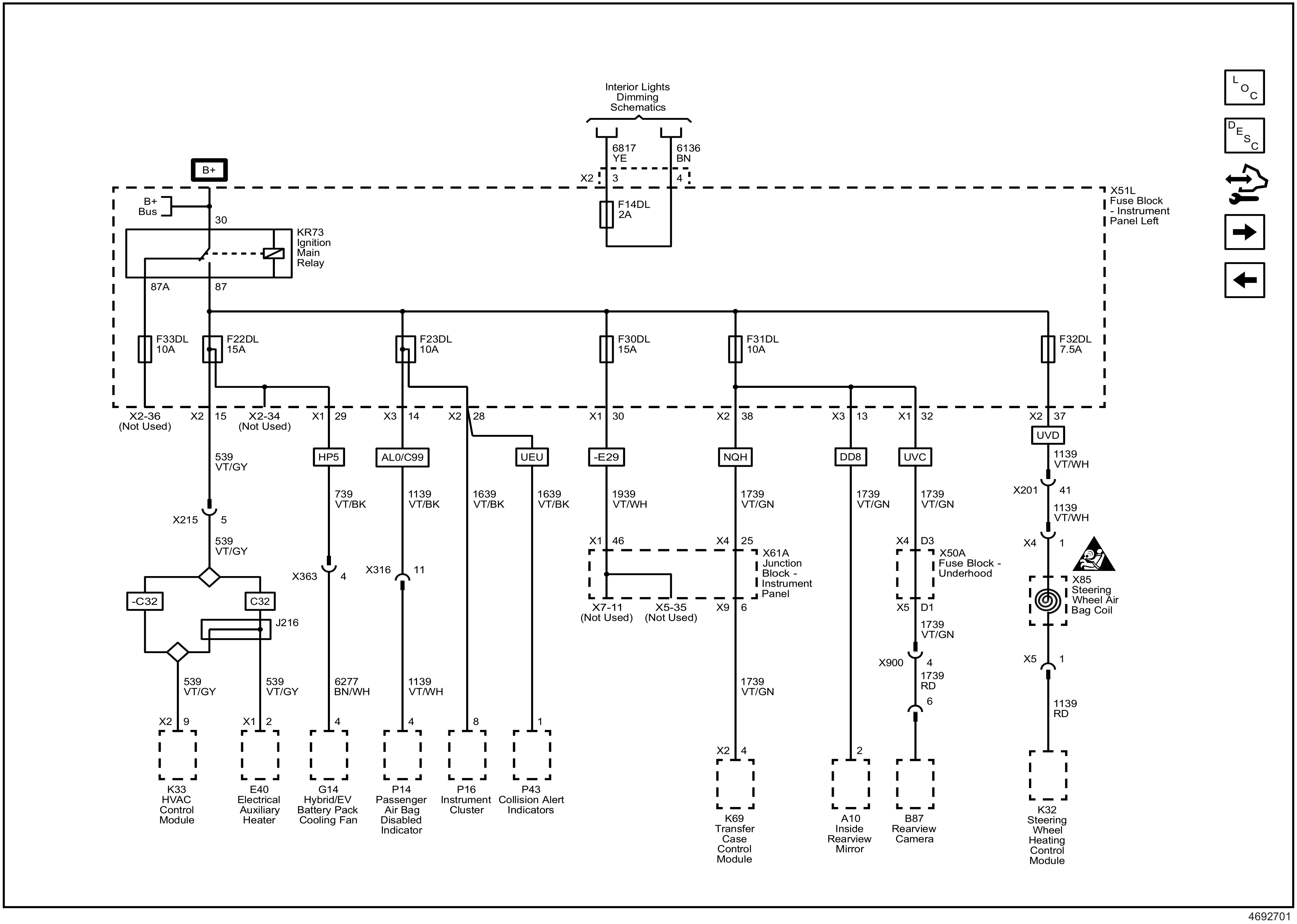

B+
F6DL 20A
F7DL 10A
F8DL 10A
F17DL 10A
F25DL 15A
F26DL 10A
F34DL 10A
F43DL 15A
F44DL 15A
CONT_THEFT 10A
B+
F3DL 10A
F13DL 2A
F40DL 30A
F41DL 30A
X51L Fuse Block - Instrument Panel Left
F29DL 15A
30
KR76A Retained Accessory Power Relay 1
87
30
KR73 Ignition Main Relay
87A
87
KR87 Transmission Park Position Relay
F2DL 10A
F10DL 50A
F11DL 50A
F33DL 10A
F30DL 15A
F31DL 10A
F32DL 7.5A
F22DL 15A
F23DL 10A
KR1R Adjustable Pedal Relay - Rearward
KR1F Adjustable Pedal Relay - Forward
F1DL 15A
F12DL 15A

4692693

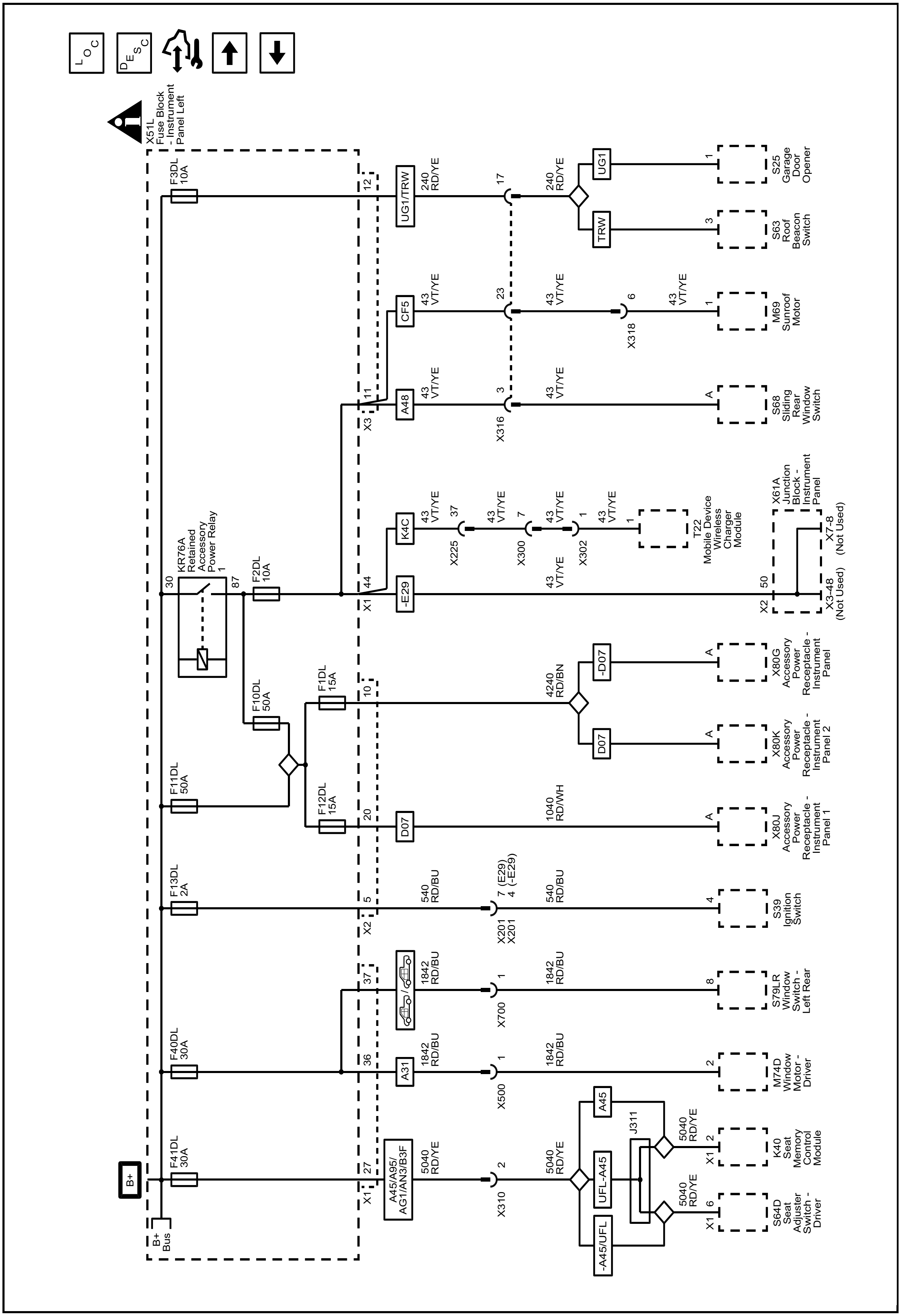
Power Distribution Schematics (1500) (F6DL, F7DL, F8DL, F17DL, F25DL, F26DL, F34DL, F43DL, F44DL and CONT_THEFT Fuses (1500))


4692700
X51L Fuse Block - Instrument Panel Left
B+
F8DL 10A
F26DL 10A
F25DL 10A
F43DL 15A
F44DL 30A
F27DL 10A
F34DL 10A
F6DL 20A
F7DL 10A
F17DL 10A
X1 16
X1-14 (Not Used)
X2 25
26
X1 5
18
17
X2 2
35
8
7
18
A31
A45/UFL
KA1/KQV
KA1/KQV
UTU/UTV
1940 RD/VT
3340 RD/VT
640 RD/WH
1140 RD/BN
5140 RD/GN
6140 RD/GN
4540 RD/BU
2840 RD/GY
2140 RD/GY
2940 RD/BN
2740 RD/WH
X500 40
X505 22
X215 4
X310 23
X312 6
X320 47
X322 4
X206 1
X316 15
KQV 47
KA1
KQV
KA1
J316
J326
J220
J519
DL3/DL8/DPN/DQS
-DL3/DL8/ DPN/DQS
UVC+IO5/IO6
KA1/KQV
KA1/KQV
X1 1
K56 Serial Data Gateway Module
K9 Body Control Module
X1 3
X2 3
1
10 (A45)
12 (-A45)
S52 Outside Rearview Mirror Switch
4
S79D Window Switch - Driver
X2 1
K33 HVAC Control Module
16
X84 Data Link Connector
X1 1
K40 Seat Memory Control Module
1
M73A Seat Blower Motor - Driver Back
1
M73C Seat Blower Motor - Driver Cushion
X1 10
7
K29 Seat Heating Control Module
1
M73D Seat Blower Motor - Passenger Cushion
1
M73B Seat Blower Motor - Passenger Back
3
B165 Content Theft Deterrent Sensor Module
X1 1
X2 1
P17 Info Display Module
X1 1
K188 Human Machine Interface Control Module Bypass Module
7
P16 Instrument Cluster
4
S31D Seat Heating and Cooling Switch - Driver
1
S31P Seat Heating and Cooling Switch - Passenger

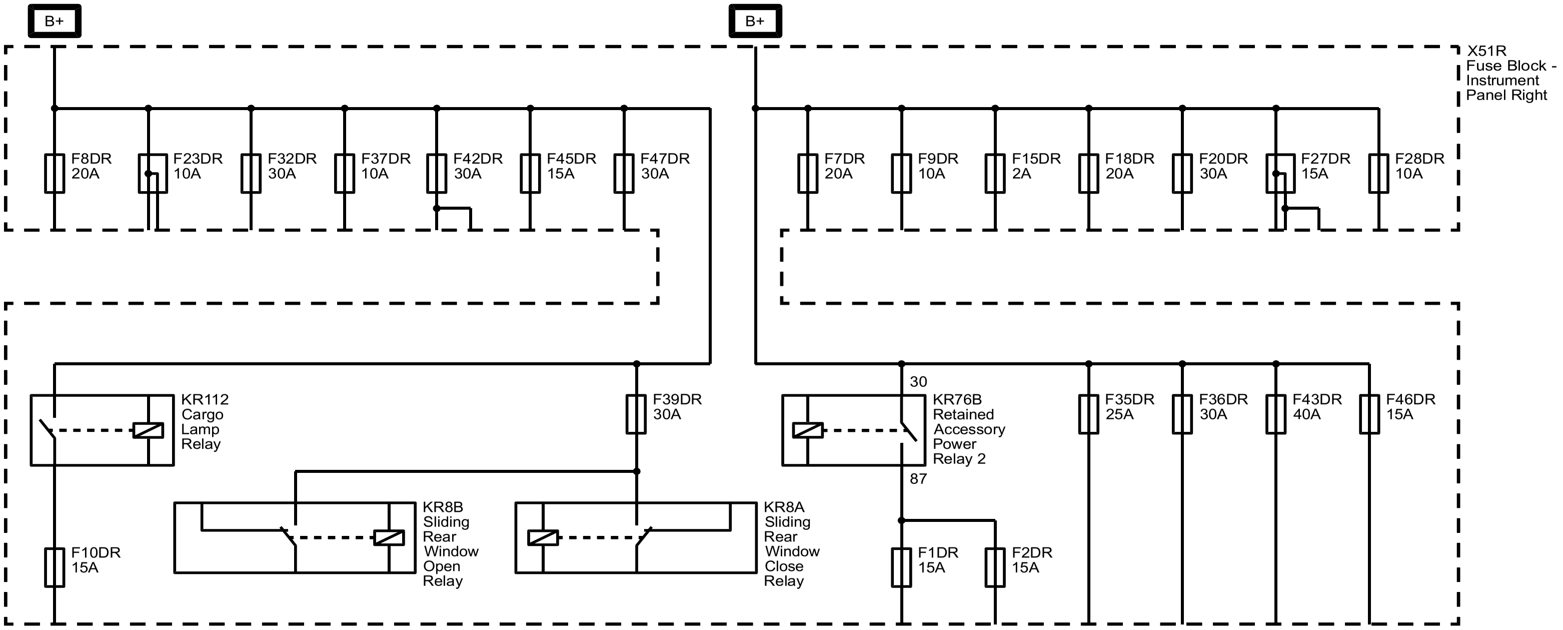
Power Distribution Schematics (1500) (F14DL, F22DL, F23DL, F30DL, F31DL, F32DL and F33DL Fuses (1500))


Interior Lights Dimming Schematics
6817 YE
6136 BN
X2 3 4
F14DL 2A
X51L Fuse Block - Instrument Panel Left
B+
B+ Bus
30
KR73 Ignition Main Relay
87A
87
F33DL 10A
F22DL 15A
F23DL 10A
F30DL 15A
F31DL 10A
F32DL 7.5A
X2-36 (Not Used)
X2 15
X2-34 (Not Used)
X1 29
X3 14
X2 28
X1 30
X2 38
X3 13
X1 32
X2 37
HP5
AL0/C99
UEU
-E29
NQH
DD8
UVC
UVD
539 VT/GY
739 VT/BK
1139 VT/BK
1639 VT/BK
1639 VT/BK
1939 VT/WH
1739 VT/GN
1739 VT/GN
1739 VT/GN
1139 VT/WH
X201 41
1139 VT/WH
X215 5
539 VT/GY
X363 4
X316 11
X1 46
X4 25
X61A Junction Block - Instrument Panel
X7-11 (Not Used)
X5-35 (Not Used)
X9 6
X4 D3
X50A Fuse Block - Underhood
X5 D1
1739 VT/GN
X900 4
1739 RD
6
X4 1
X85 Steering Wheel Air Bag Coil
X5 1
1139 RD
-C32
C32
J216
539 VT/GY
539 VT/GY
6277 BN/WH
1139 VT/WH
1739 VT/GN
X2 9
X1 2
4
4
8
1
X2 4
2
K33 HVAC Control Module
E40 Electrical Auxiliary Heater
G14 Hybrid/EV Battery Pack Cooling Fan
P14 Passenger Air Bag Disabled Indicator
P16 Instrument Cluster
P43 Collision Alert Indicators
K69 Transfer Case Control Module
A10 Inside Rearview Mirror
B87 Rearview Camera
K32 Steering Wheel Heating Control Module
LOC
DESC
4692701

Power Distribution Schematics (1500) (F1DL, F2DL, F3DL, F10DL, F11DL, F12DL, F13DL, F40DL and F41DL Fuses (1500))

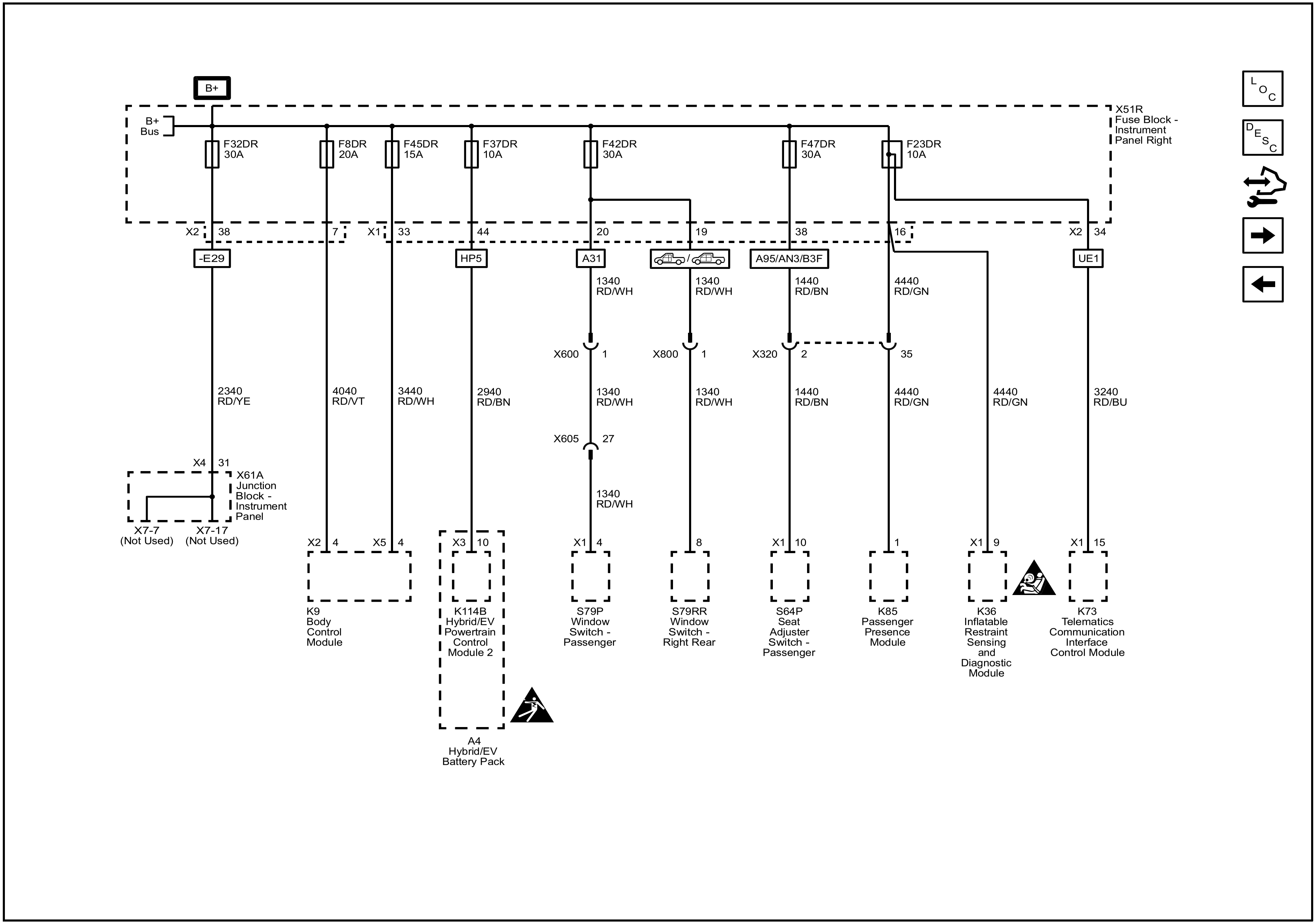

4692702
X51L Fuse Block - Instrument Panel Left
B+
B+ Bus
F3DL 10A
KR76A Retained Accessory Power Relay 1
30
87
F2DL 10A
F10DL 50A
F1DL 15A
F11DL 50A
F12DL 15A
F13DL 2A
F40DL 30A
F41DL 30A
X3 12
X3 11
X1 44
10
20
X2 5
37
36
X1 27
UG1/TRW
CF5
A48
K4C
-E29
D07
A31
A45/A95/ AG1/AN3/B3F
240 RD/YE
43 VT/YE
4240 RD/BN
1040 RD/WH
540 RD/BU
1842 RD/BU
5040 RD/YE
17
23
3
X316
37
X225
7
X300
1
X302
6
X318
7 (E29)
4 (-E29)
X201
X201
1
X700
1
X500
2
X310
UG1
TRW
-D07
D07
A45
UFL-A45
-A45/UFL
J311
1
3
A
X2 50
X7-8 (Not Used)
X3-48 (Not Used)
X61A Junction Block - Instrument Panel
4
8
2
X1 2
X1 6
S25 Garage Door Opener
S63 Roof Beacon Switch
M69 Sunroof Motor
S68 Sliding Rear Window Switch
T22 Mobile Device Wireless Charger Module
X80G Accessory Power Receptacle - Instrument Panel
X80K Accessory Power Receptacle - Instrument Panel 2
X80J Accessory Power Receptacle - Instrument Panel 1
S39 Ignition Switch
S79LR Window Switch - Left Rear
M74D Window Motor - Driver
K40 Seat Memory Control Module
S64D Seat Adjuster Switch - Driver

Power Distribution Schematics (1500) (B+ Bus X51R Fuse Block - Instrument Panel Right (1500))


B+
B+
X51R
Fuse Block -
Instrument
Panel Right
F8DR
20A
F23DR
10A
F32DR
30A
F37DR
10A
F42DR
30A
F45DR
15A
F47DR
30A
F7DR
20A
F9DR
10A
F15DR
2A
F18DR
20A
F20DR
30A
F27DR
15A
F28DR
10A
KR112
Cargo
Lamp
Relay
F39DR
30A
30
KR76B
Retained
Accessory
Power
Relay 2
87
F35DR
25A
F36DR
30A
F43DR
40A
F46DR
15A
KR8B
Sliding
Rear
Window
Open
Relay
KR8A
Sliding
Rear
Window
Close
Relay
F10DR
15A
F1DR
15A
F2DR
15A

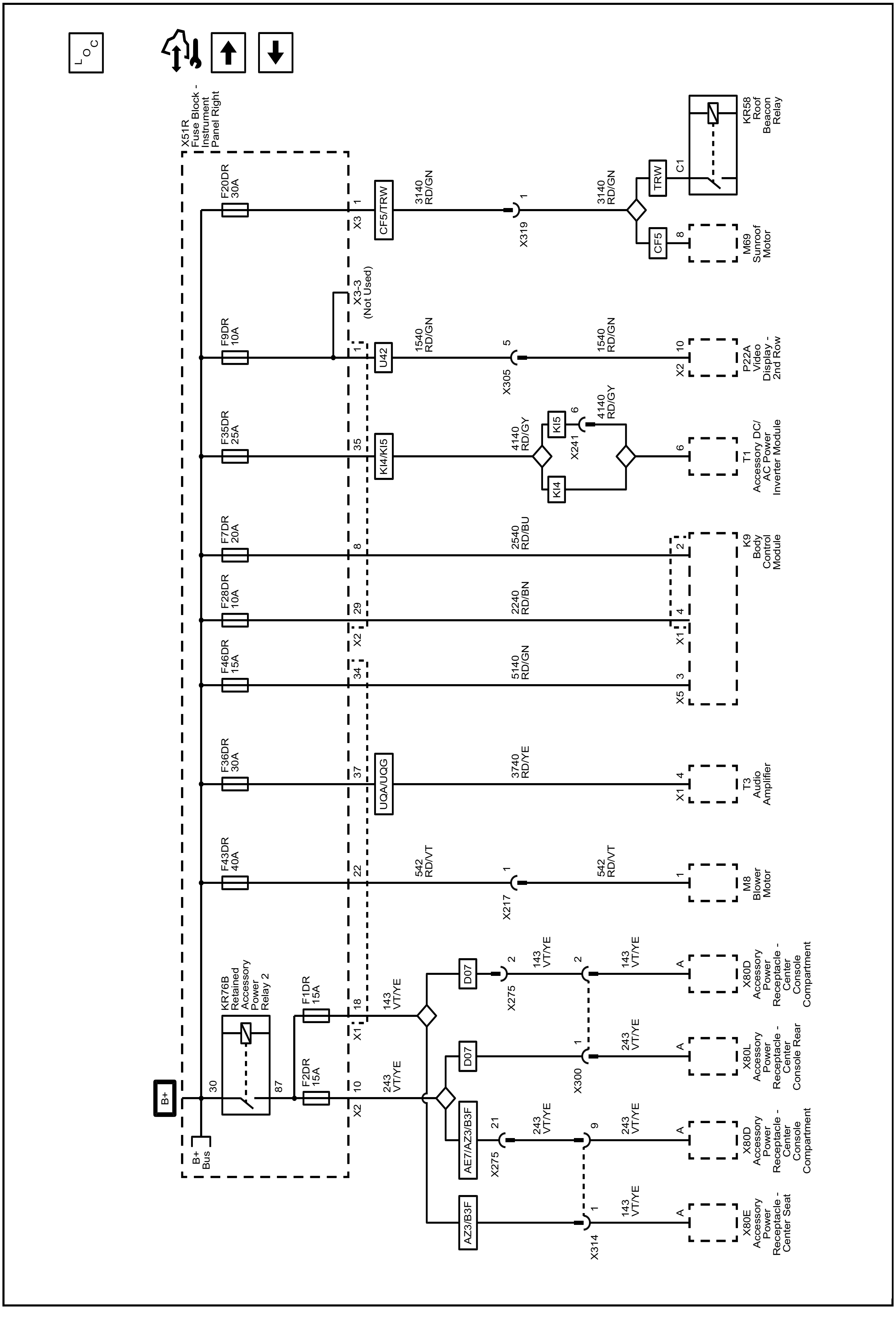
4692703

Power Distribution Schematics (1500) (F8DR, F23DR, F32DR, F42DR, F45DR and F47DR Fuses (1500))

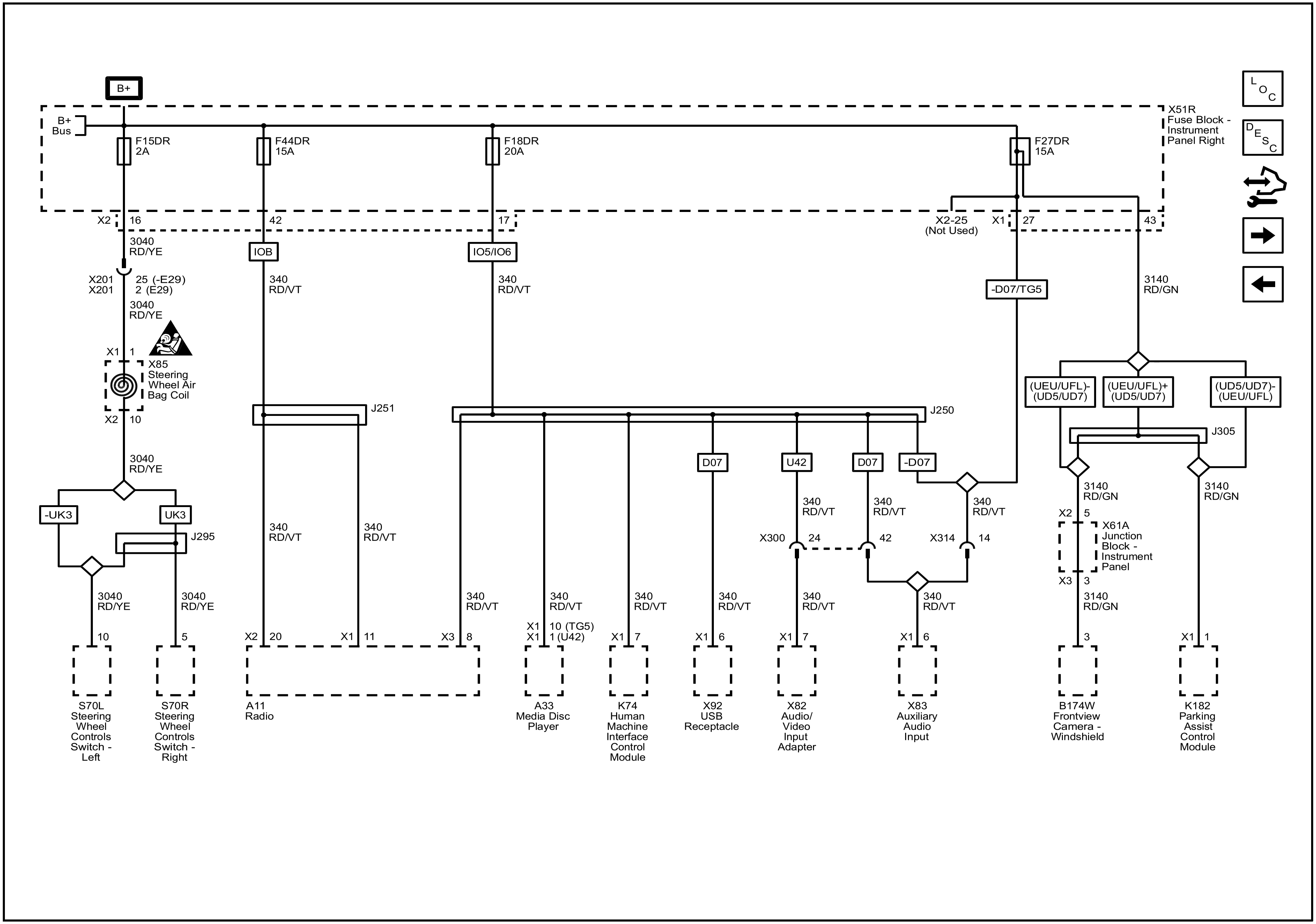

L O C
D E S C
B+
B+ Bus
X51R Fuse Block - Instrument Panel Right
F32DR 30A
F8DR 20A
F45DR 15A
F37DR 10A
F42DR 30A
F47DR 30A
F23DR 10A
X2 38
7
X1 33
44
20
19
38
16
X2 34
-E29
HP5
A31
A95/AN3/B3F
UE1
1340 RD/WH
1340 RD/WH
1440 RD/BN
4440 RD/GN
X600 1
X800 1
X320 2
35
2340 RD/YE
4040 RD/VT
3440 RD/WH
2940 RD/BN
1340 RD/WH
1340 RD/WH
1440 RD/BN
4440 RD/GN
4440 RD/GN
3240 RD/BU
X605 27
1340 RD/WH
X4 31
X61A Junction Block - Instrument Panel
X7-7 (Not Used)
X7-17 (Not Used)
X2 4
X5 4
X3 10
X1 4
8
X1 10
1
X1 9
X1 15
K9 Body Control Module
K114B Hybrid/EV Powertrain Control Module 2
A4 Hybrid/EV Battery Pack
S79P Window Switch - Passenger
S79RR Window Switch - Right Rear
S64P Seat Adjuster Switch - Passenger
K85 Passenger Presence Module
K36 Inflatable Restraint Sensing and Diagnostic Module
K73 Telematics Communication Interface Control Module

4692705

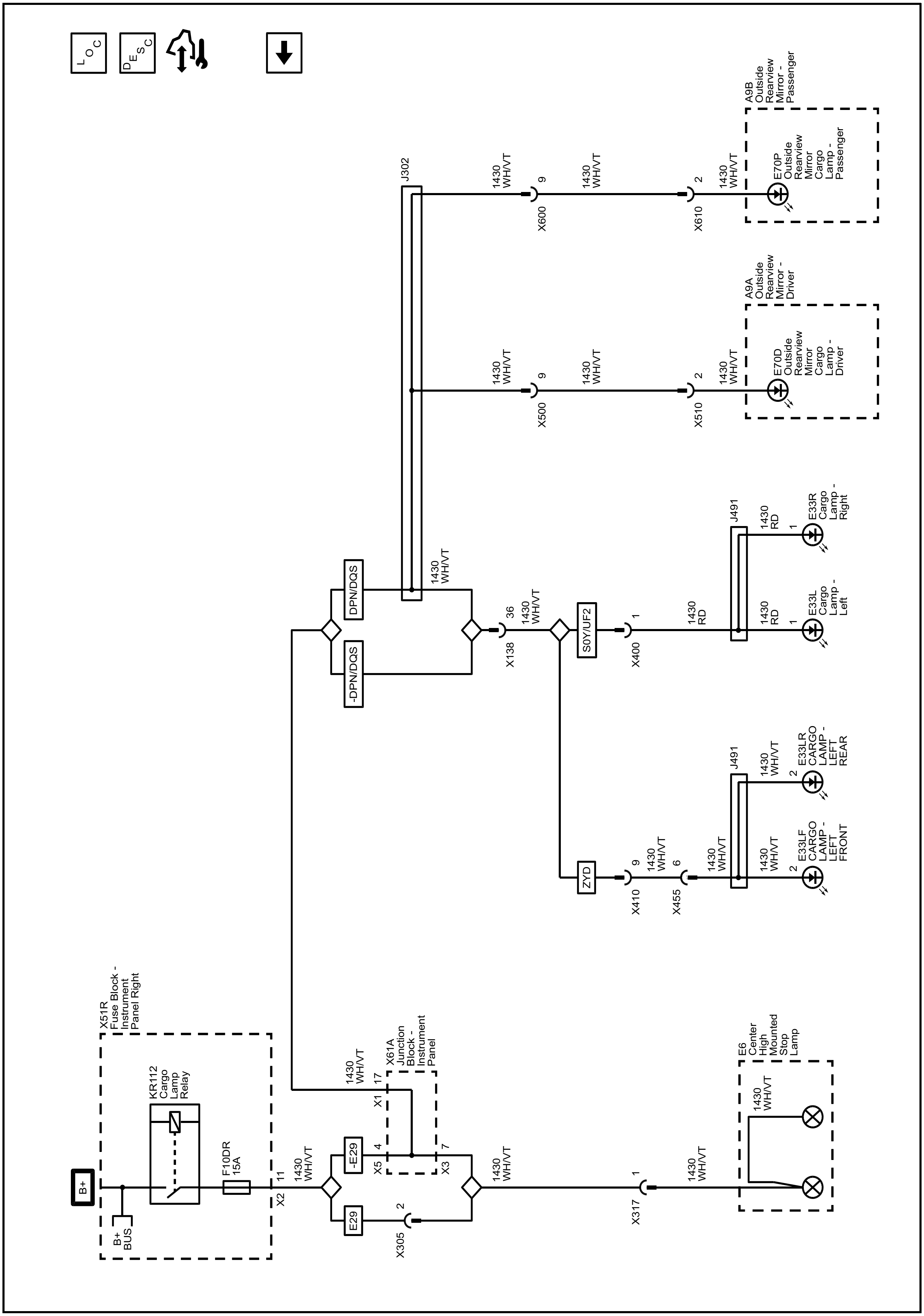
Power Distribution Schematics (1500) (F1DR, F2DR, F7DR, F9DR, F20DR, F28DR, F35DR, F36DR, F43DR and F46DR Fuses (1500))


4692706
L O C
X51R Fuse Block - Instrument Panel Right
B+
B+ Bus
30
87
KR76B Retained Accessory Power Relay 2
F2DR 15A
F1DR 15A
F43DR 40A
F36DR 30A
F46DR 15A
F28DR 10A
F7DR 20A
F35DR 25A
F9DR 10A
F20DR 30A
X2 10
X1 18
22
37
34
X2 29
8
35
1
X3 1
X3-3 (Not Used)
243 VT/YE
143 VT/YE
542 RD/VT
UQA/UQG
3740 RD/YE
5140 RD/GN
2240 RD/BN
2540 RD/BU
KI4/KI5
4140 RD/GY
U42
1540 RD/GN
CF5/TRW
3140 RD/GN
AZ3/B3F
AE7/AZ3/B3F
D07
D07
X275 21
X275 2
X300 1
X314 1
9
2
X217 1
X241 6
KI5
KI4
X305 5
X319 1
CF5
TRW
C1
8
A
A
A
A
1
X1 4
X5 3
X1 4
2
6
X2 10
X80E Accessory Power Receptacle - Center Seat
X80D Accessory Power Receptacle - Center Console Compartment
X80L Accessory Power Receptacle - Center Console Rear
X80D Accessory Power Receptacle - Center Console Compartment
M8 Blower Motor
T3 Audio Amplifier
K9 Body Control Module
T1 Accessory DC/AC Power Inverter Module
P22A Video Display - 2nd Row
M69 Sunroof Motor
KR58 Roof Beacon Relay

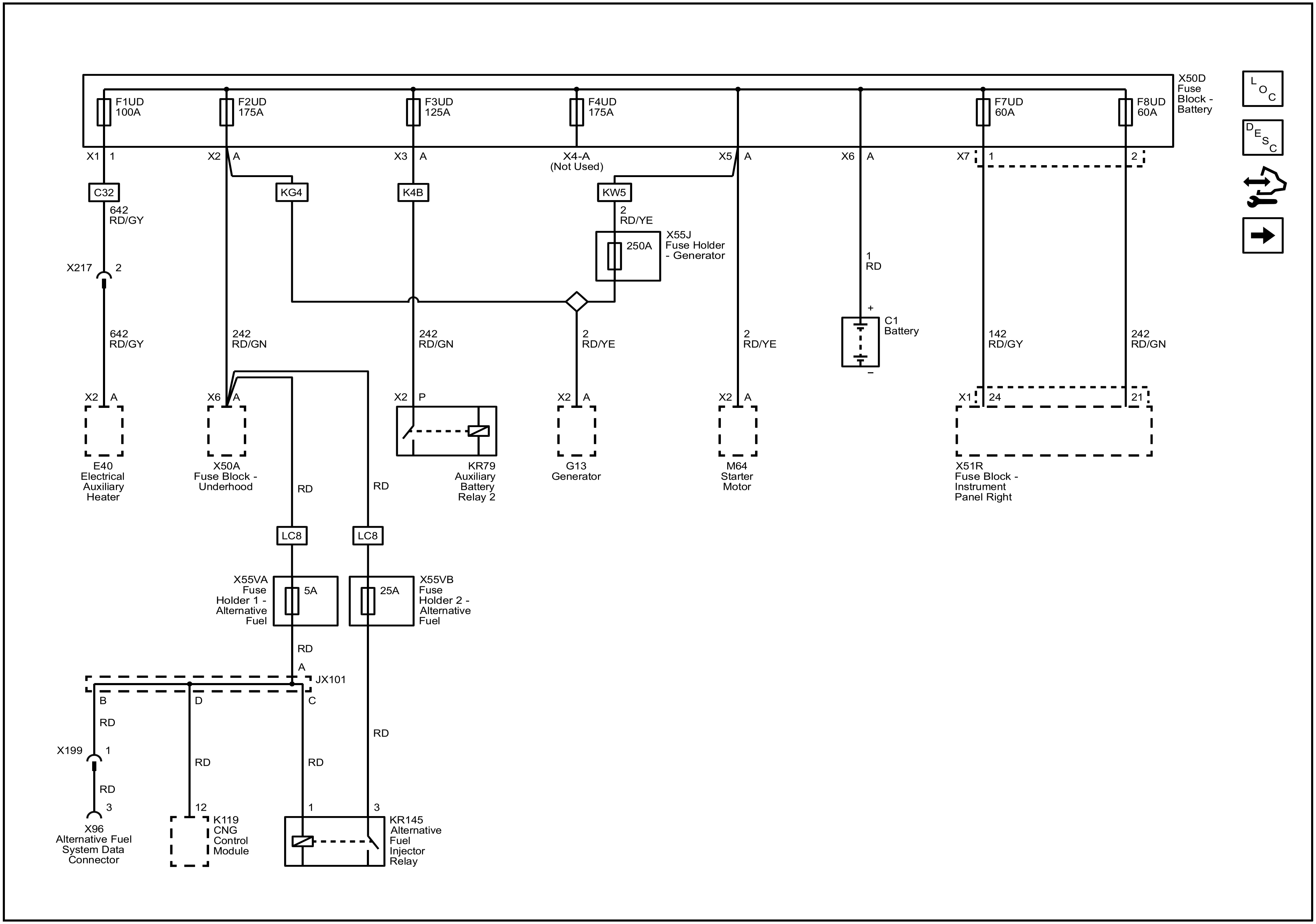
Power Distribution Schematics (1500) (F15DR, F18DR, F27DR and F44DR Fuses (1500))


B+
B+ Bus
X51R Fuse Block - Instrument Panel Right
F15DR 2A
F44DR 15A
F18DR 20A
F27DR 15A
X2 16
42
17
X2-25 (Not Used)
X1 27
43
3040 RD/YE
X201 25 (-E29)
X201 2 (E29)
3040 RD/YE
X1 1
X85 Steering Wheel Air Bag Coil
X2 10
3040 RD/YE
-UK3
UK3
J295
3040 RD/YE
3040 RD/YE
10
5
S70L Steering Wheel Controls Switch - Left
S70R Steering Wheel Controls Switch - Right
IOB
340 RD/VT
J251
340 RD/VT
340 RD/VT
X2 20
X1 11
A11 Radio
IO5/IO6
340 RD/VT
J250
340 RD/VT
X3 8
340 RD/VT
X1 10 (TG5)
X1 1 (U42)
A33 Media Disc Player
340 RD/VT
X1 7
K74 Human Machine Interface Control Module
D07
340 RD/VT
X1 6
X92 USB Receptacle
U42
340 RD/VT
X300 24
340 RD/VT
X1 7
X82 Audio/ Video Input Adapter
D07
340 RD/VT
42
-D07
-D07/TG5
340 RD/VT
X314 14
340 RD/VT
X1 6
X83 Auxiliary Audio Input
3140 RD/GN
(UEU/UFL)- (UD5/UD7)
(UEU/UFL)+ (UD5/UD7)
(UD5/UD7)- (UEU/UFL)
J305
3140 RD/GN
X2 5
X61A Junction Block - Instrument Panel
X3 3
3140 RD/GN
3
B174W Frontview Camera - Windshield
3140 RD/GN
X1 1
K182 Parking Assist Control Module
LOC
DESC
4692708

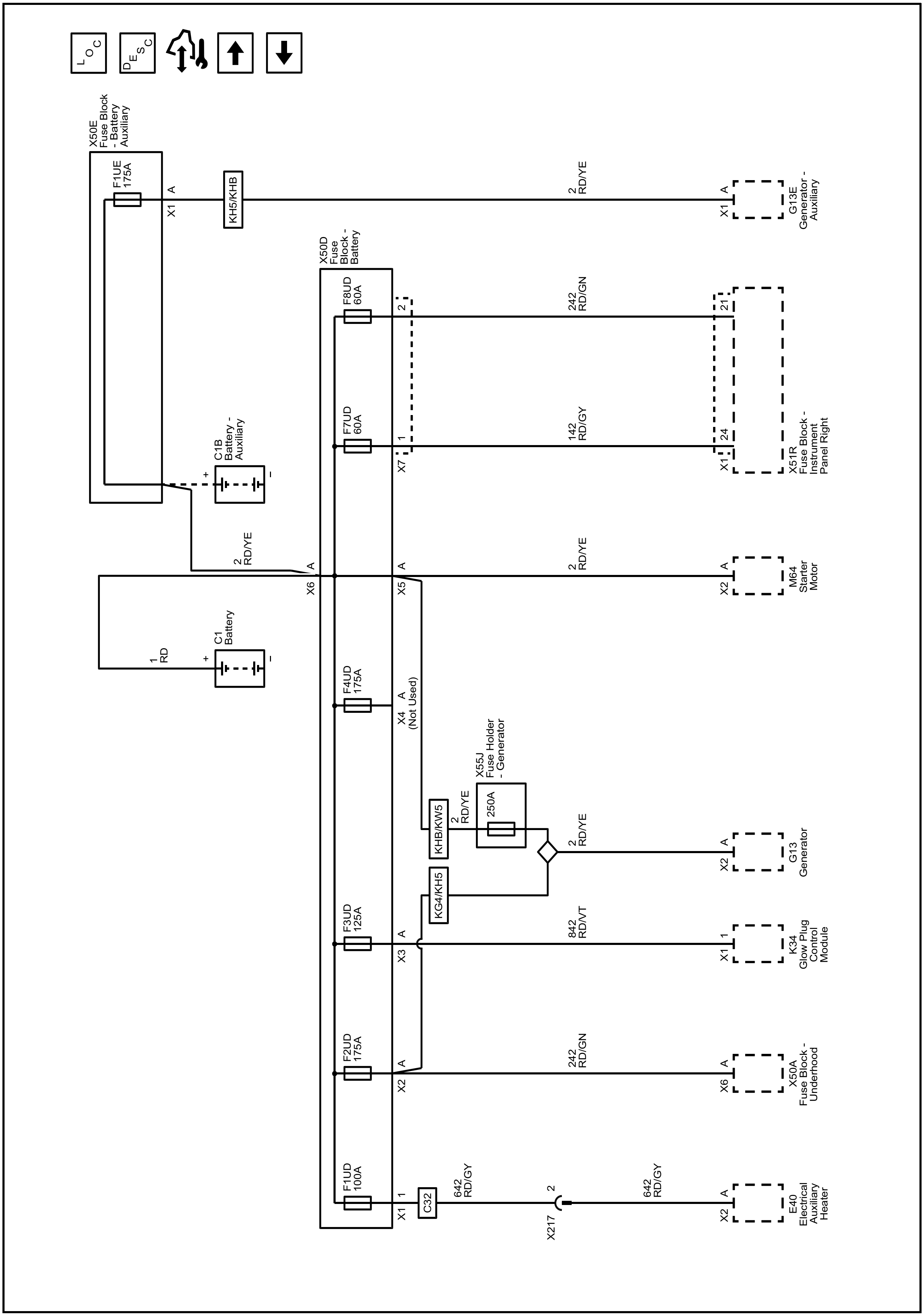
Power Distribution Schematics (1500) (F10DR Fuse (1500))


4692709
LOC
DESC
B+
B+ BUS
X51R Fuse Block - Instrument Panel Right
KR112 Cargo Lamp Relay
F10DR 15A
X2 11
1430 WH/VT
E29
-E29
X305 2
X5 4
X61A Junction Block - Instrument Panel
X1 17
X3 7
1430 WH/VT
X317 1
1430 WH/VT
E6 Center High Mounted Stop Lamp
1430 WH/VT
1430 WH/VT
DPN/DQS
-DPN/DQS
J302
1430 WH/VT
X138 36
1430 WH/VT
S0Y/UF2
X400 1
1430 RD
J491
1430 RD
1 E33L Cargo Lamp - Left
1430 RD
1 E33R Cargo Lamp - Right
ZYD
X410 9
1430 WH/VT
X455 6
1430 WH/VT
J491
1430 WH/VT
2 E33LF CARGO LAMP - LEFT FRONT
1430 WH/VT
2 E33LR CARGO LAMP - LEFT REAR
X500 9
1430 WH/VT
1430 WH/VT
X510 2
1430 WH/VT
A9A Outside Rearview Mirror - Driver
E70D Outside Rearview Mirror Cargo Lamp - Driver
X600 9
1430 WH/VT
1430 WH/VT
X610 2
1430 WH/VT
A9B Outside Rearview Mirror - Passenger
E70P Outside Rearview Mirror Cargo Lamp - Passenger

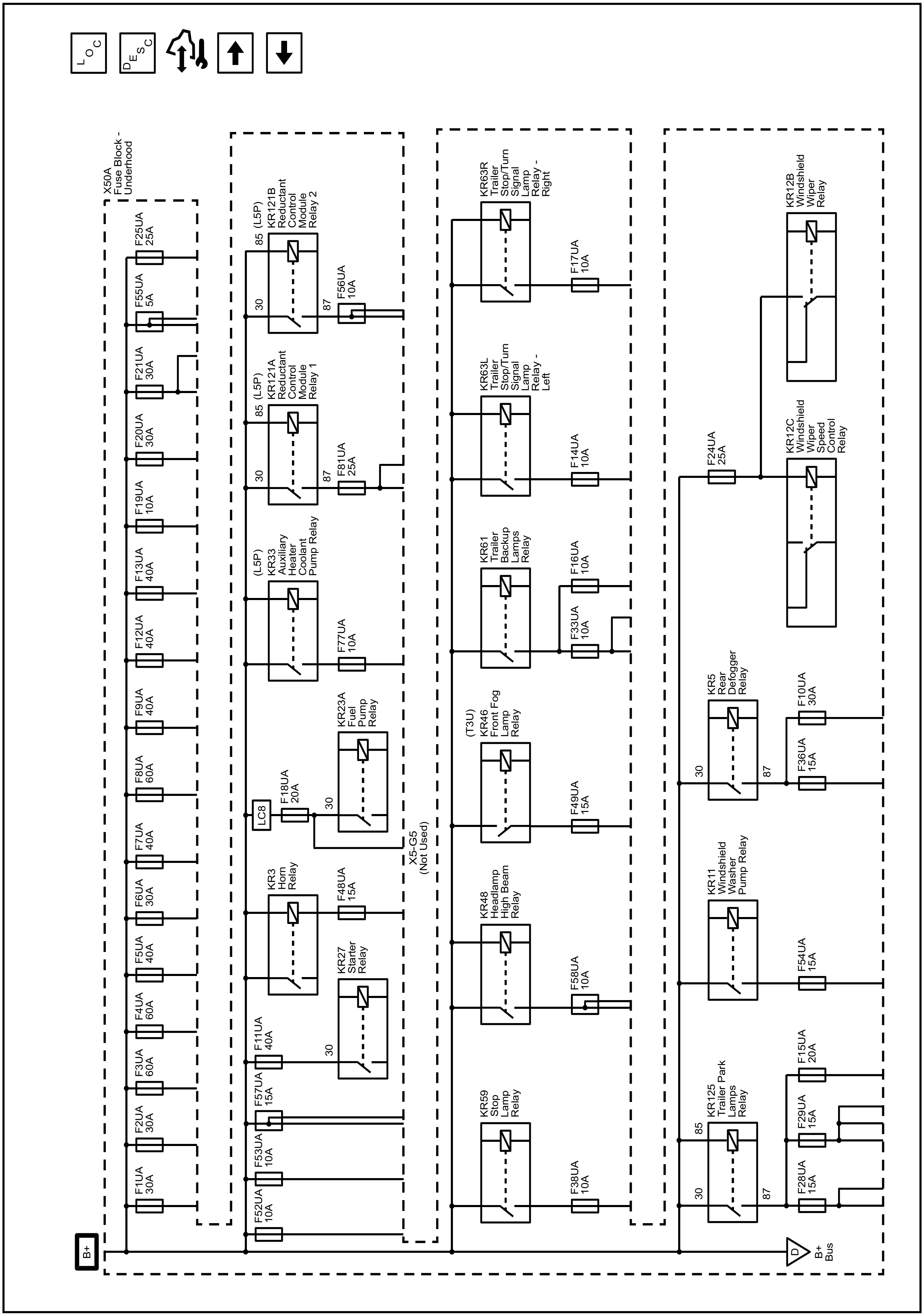
Power Distribution Schematics (2500/3500) (X50D Fuse Block - Battery (2500/3500 with L96 or LC8))


X50D Fuse Block - Battery
F1UD 100A
F2UD 175A
F3UD 125A
F4UD 175A
F7UD 60A
F8UD 60A
X1 1
X2 A
X3 A
X4-A (Not Used)
X5 A
X6 A
X7 1
2
C32
642 RD/GY
X217 2
642 RD/GY
KG4
K4B
KW5
2 RD/YE
X55J Fuse Holder - Generator
250A
1 RD
+
C1 Battery
−
242 RD/GN
242 RD/GN
2 RD/YE
2 RD/YE
142 RD/GY
242 RD/GN
X2 A
E40 Electrical Auxiliary Heater
X6 A
X50A Fuse Block - Underhood
X2 P
KR79 Auxiliary Battery Relay 2
X2 A
G13 Generator
X2 A
M64 Starter Motor
X1 24
21
X51R Fuse Block - Instrument Panel Right
RD
RD
LC8
LC8
X55VA Fuse Holder 1 - Alternative Fuel
5A
25A
X55VB Fuse Holder 2 - Alternative Fuel
RD
A
JX101
B
D
C
RD
X199 1
RD
RD
RD
RD
3
X96 Alternative Fuel System Data Connector
12
K119 CNG Control Module
1
3
KR145 Alternative Fuel Injector Relay
4692711

Power Distribution Schematics (2500/3500) (X50D Fuse Block - Battery (2500/3500 with L5P))

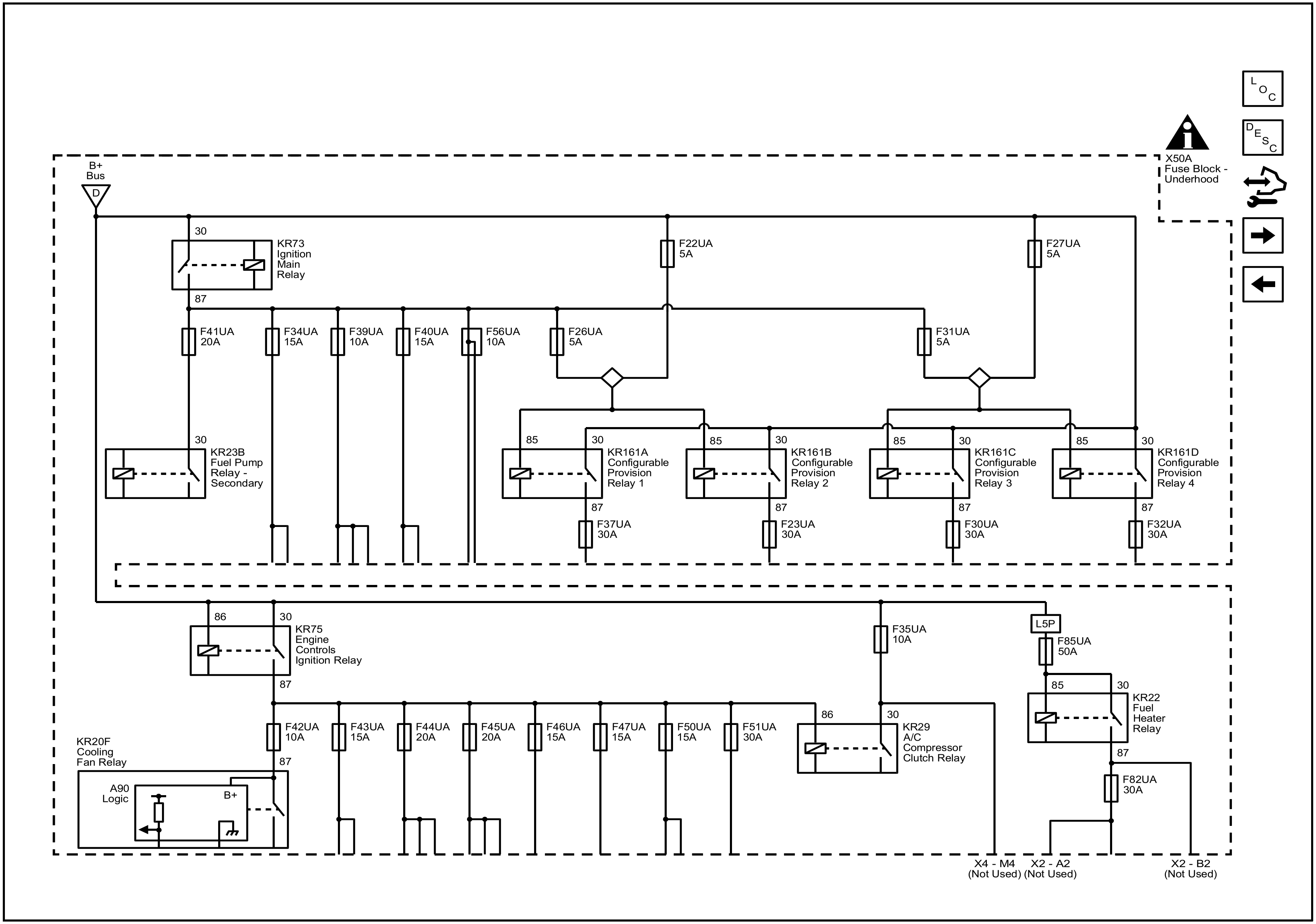

4692712
LOC
DESC
X50E Fuse Block - Battery Auxiliary
F1UE 175A
X1 A
KH5/KHB
2 RD/YE
X1 A
G13E Generator - Auxiliary
C1B Battery - Auxiliary
+
–
X50D Fuse Block - Battery
F8UD 60A
2
242 RD/GN
21
F7UD 60A
1
X7
142 RD/GY
X1 24
X51R Fuse Block - Instrument Panel Right
2 RD/YE
X6 A
X5 A
2 RD/YE
X2 A
M64 Starter Motor
1 RD
C1 Battery
F4UD 175A
X4 A (Not Used)
X55J Fuse Holder - Generator
250A
KHB/KW5
2 RD/YE
2 RD/YE
X2 A
G13 Generator
KG4/KH5
F3UD 125A
X3 A
842 RD/VT
X1 1
K34 Glow Plug Control Module
F2UD 175A
X2 A
242 RD/GN
X6 A
X50A Fuse Block - Underhood
F1UD 100A
X1 1
C32
642 RD/GY
X217 2
642 RD/GY
X2 A
E40 Electrical Auxiliary Heater

Power Distribution Schematics (2500/3500) (B+ Bus X50A Fuse Block - Underhood 1 of 2 (2500/3500))

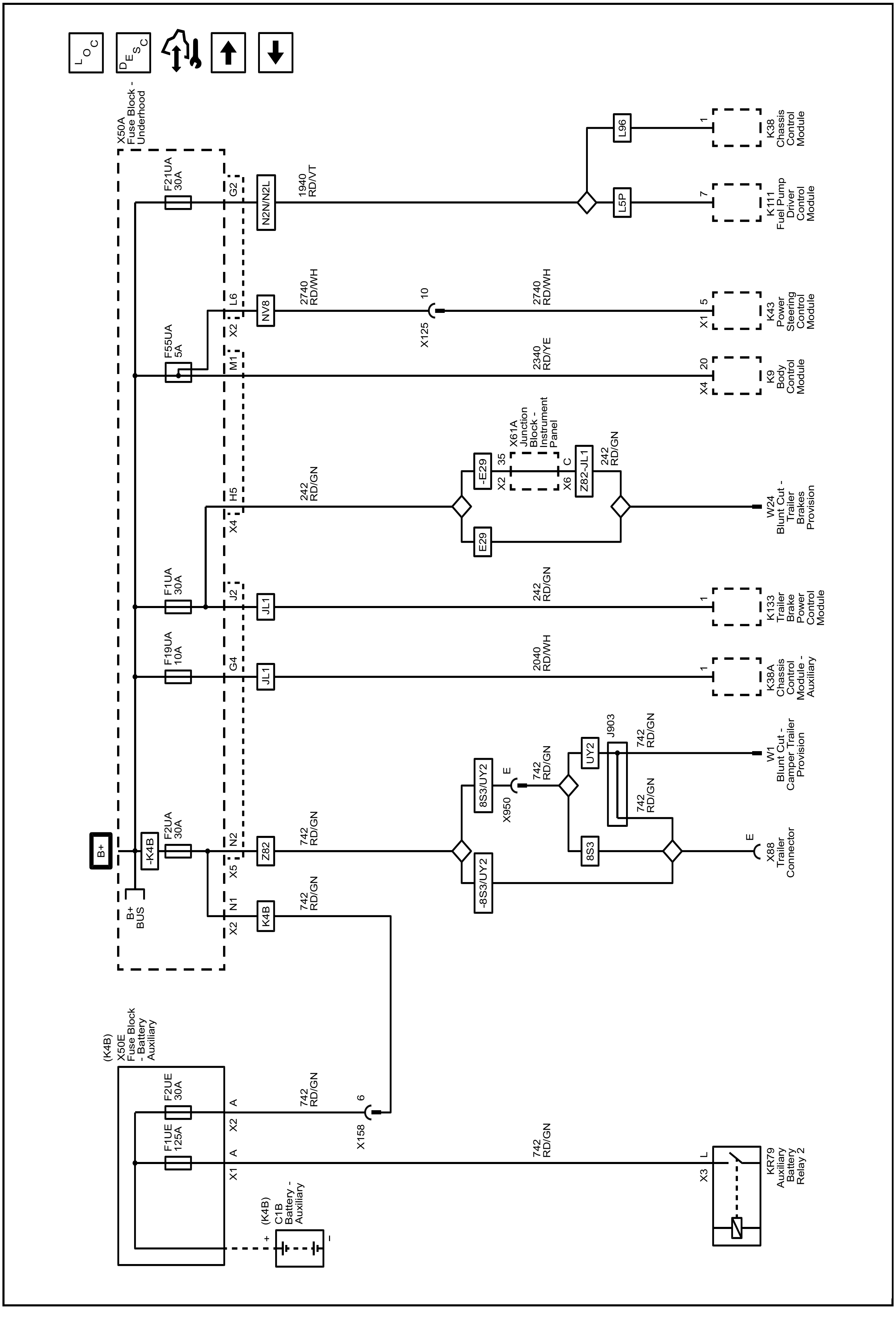


4692714
LOC
DESC
B+
X50A Fuse Block - Underhood
F1UA 30A
F2UA 30A
F3UA 60A
F4UA 60A
F5UA 40A
F6UA 30A
F7UA 40A
F8UA 60A
F9UA 40A
F12UA 40A
F13UA 40A
F19UA 10A
F20UA 30A
F21UA 30A
F55UA 5A
F25UA 25A
F52UA 10A
F53UA 10A
F57UA 15A
F11UA 40A
30
KR27 Starter Relay
KR3 Horn Relay
F48UA 15A
LC8
F18UA 20A
30
KR23A Fuel Pump Relay
X5-G5 (Not Used)
(L5P) KR33 Auxiliary Heater Coolant Pump Relay
F77UA 10A
85 (L5P) KR121A Reductant Control Module Relay 1
30
87
F81UA 25A
85 (L5P) KR121B Reductant Control Module Relay 2
30
87
F56UA 10A
KR59 Stop Lamp Relay
F38UA 10A
KR48 Headlamp High Beam Relay
F58UA 10A
(T3U) KR46 Front Fog Lamp Relay
F49UA 15A
KR61 Trailer Backup Lamps Relay
F33UA 10A
F16UA 10A
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
F14UA 10A
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F17UA 10A
85
30
KR125 Trailer Park Lamps Relay
87
F28UA 15A
F29UA 15A
F15UA 20A
KR11 Windshield Washer Pump Relay
F54UA 15A
30
KR5 Rear Defogger Relay
87
F36UA 15A
F10UA 30A
F24UA 25A
KR12C Windshield Wiper Speed Control Relay
KR12B Windshield Wiper Relay
D
B+ Bus

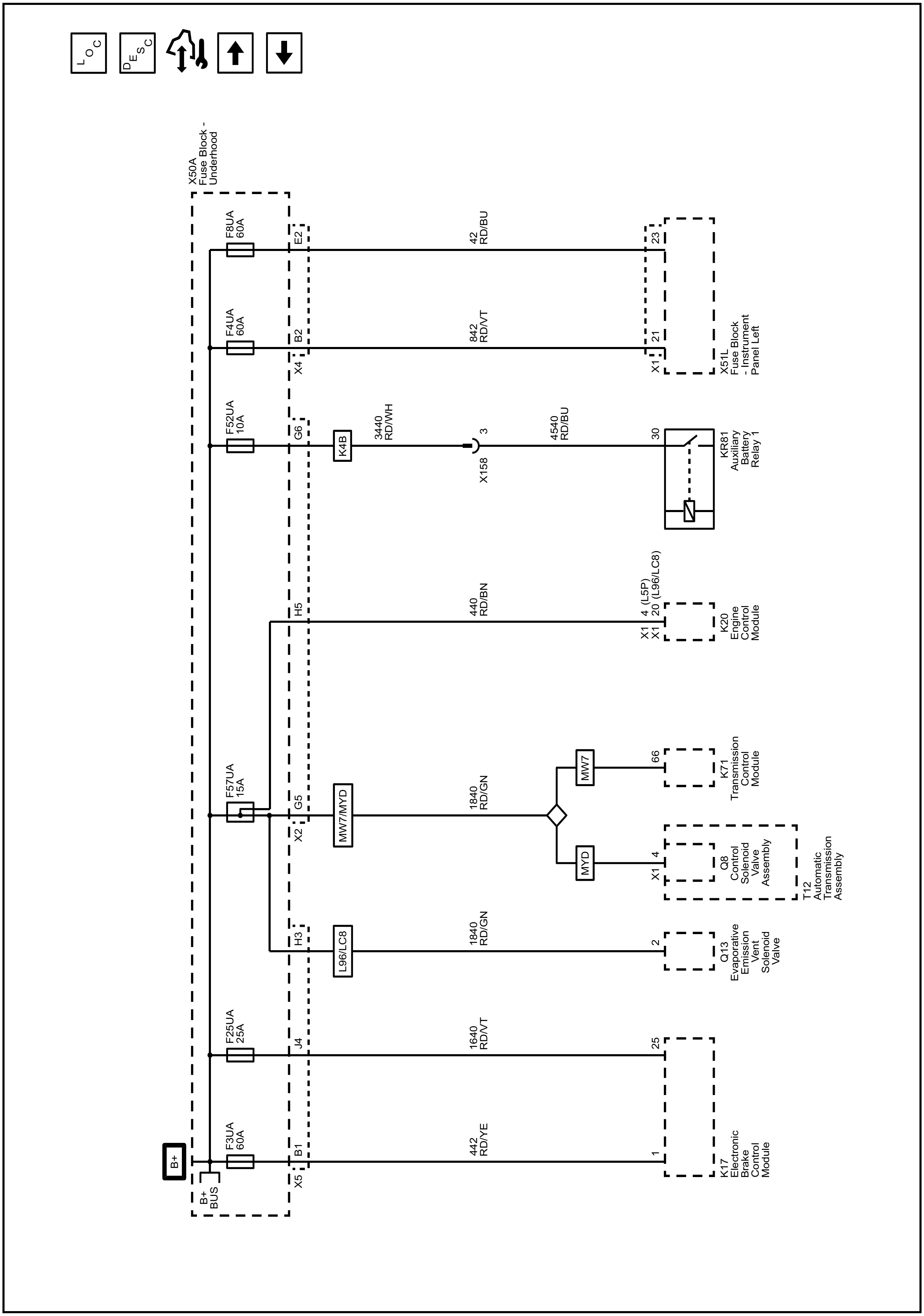
Power Distribution Schematics (2500/3500) (B+ Bus X50A Fuse Block - Underhood 2 of 2 (2500/3500))


LOC
DESC
X50A
Fuse Block -
Underhood
B+
Bus
D
30
KR73
Ignition
Main
Relay
87
F22UA
5A
F27UA
5A
F41UA
20A
F34UA
15A
F39UA
10A
F40UA
15A
F56UA
10A
F26UA
5A
F31UA
5A
30
KR23B
Fuel Pump
Relay -
Secondary
85
30
KR161A
Configurable
Provision
Relay 1
87
F37UA
30A
85
30
KR161B
Configurable
Provision
Relay 2
87
F23UA
30A
85
30
KR161C
Configurable
Provision
Relay 3
87
F30UA
30A
85
30
KR161D
Configurable
Provision
Relay 4
87
F32UA
30A
86
30
KR75
Engine
Controls
Ignition Relay
87
F35UA
10A
L5P
F85UA
50A
85
30
KR22
Fuel
Heater
Relay
87
F82UA
30A
F42UA
10A
F43UA
15A
F44UA
20A
F45UA
20A
F46UA
15A
F47UA
15A
F50UA
15A
F51UA
30A
86
30
KR29
A/C
Compressor
Clutch Relay
KR20F
Cooling
Fan Relay
87
A90
Logic
B+
X4 - M4
(Not Used)
X2 - A2
(Not Used)
X2 - B2
(Not Used)
4692719

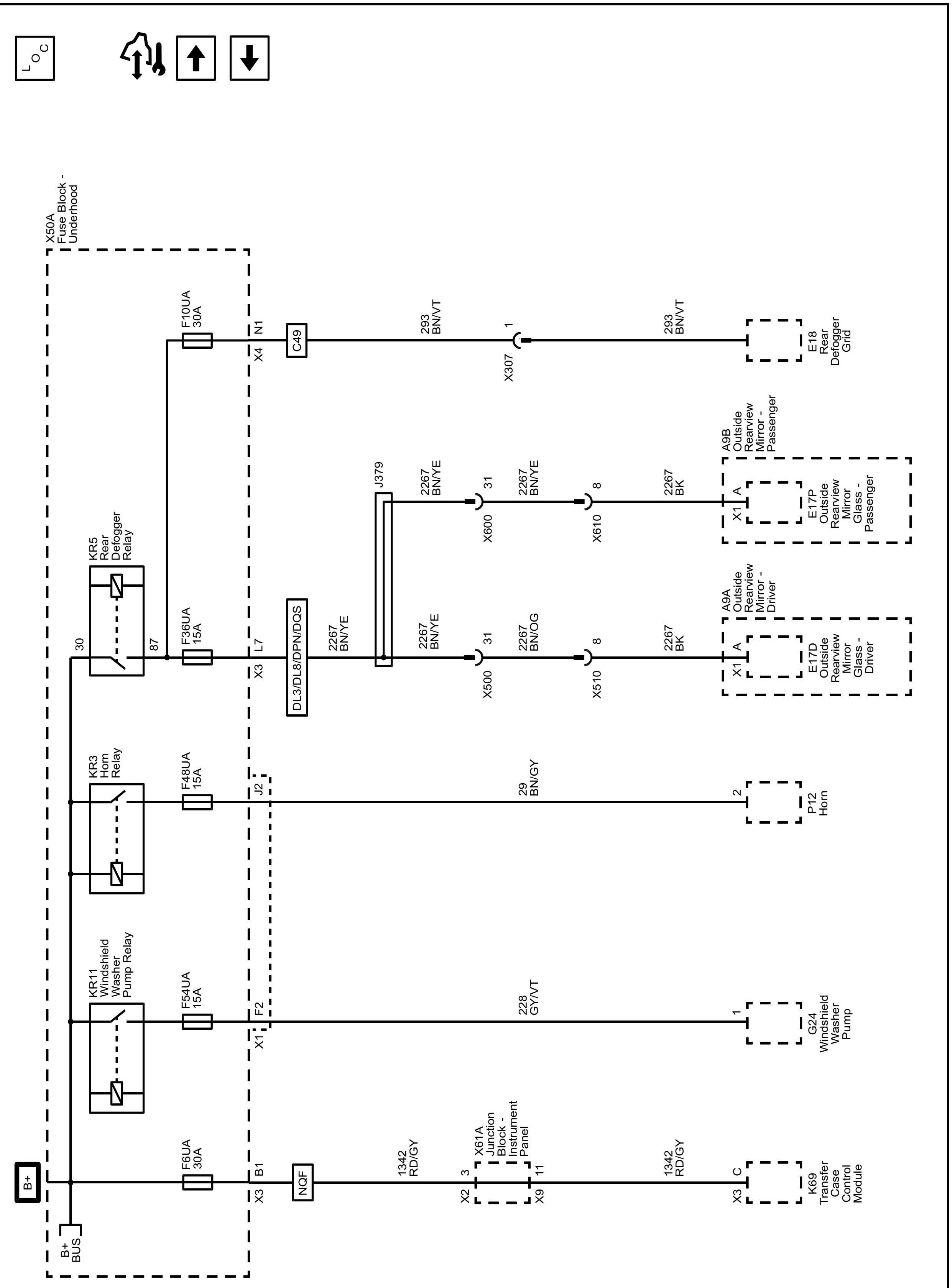
Power Distribution Schematics (2500/3500) (F1UA, F1UE, F2UA, F2UE, F19UA, F21UA, and F55UA Fuses (2500/3500))


4692724
LOC
DESC
X50A Fuse Block - Underhood
B+
B+ BUS
-K4B
F2UA 30A
F19UA 10A
F1UA 30A
F55UA 5A
F21UA 30A
X2 N1
X5 N2
G4
X4 H5
J2
X2 M1
L6
G2
K4B
Z82
JL1
JL1
NV8
N2N/N2L
742 RD/GN
742 RD/GN
2040 RD/WH
242 RD/GN
242 RD/GN
2340 RD/YE
2740 RD/WH
1940 RD/VT
-8S3/UY2
8S3/UY2
X950 E
742 RD/GN
8S3
UY2
J903
742 RD/GN
742 RD/GN
E29
-E29
X2 35
X61A Junction Block - Instrument Panel
X6 C
Z82-JL1
242 RD/GN
X125 10
2740 RD/WH
L5P
L96
E X88 Trailer Connector
W1 Blunt Cut - Camper Trailer Provision
1 K38A Chassis Control Module - Auxiliary
1 K133 Trailer Brake Power Control Module
W24 Blunt Cut - Trailer Brakes Provision
X4 20 K9 Body Control Module
X1 5 K43 Power Steering Control Module
7 K111 Fuel Pump Driver Control Module
1 K38 Chassis Control Module
(K4B) X50E Fuse Block - Battery - Auxiliary
F2UE 30A
F1UE 125A
X2 A
X1 A
742 RD/GN
X158 6
742 RD/GN
(K4B) C1B Battery - Auxiliary
+
-
X3 L
KR79 Auxiliary Battery Relay 2

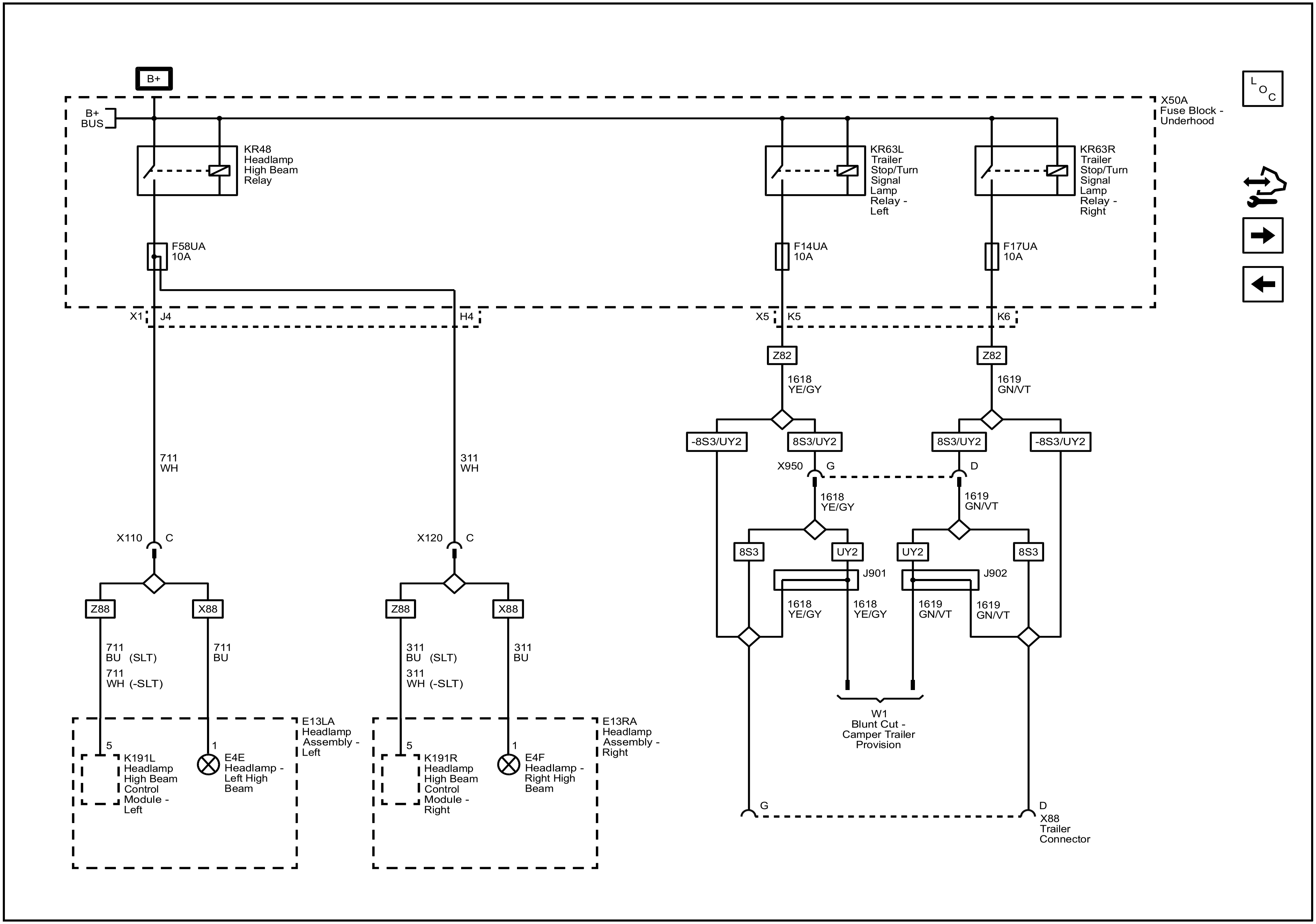
Power Distribution Schematics (2500/3500) (F3UA, F4UA, F8UA, F25UA F52UA and F57UA Fuses (2500/3500))


4692729
LOC
DESC
B+
B+ BUS
X50A Fuse Block - Underhood
F8UA 60A
E2
42 RD/BU
23
F4UA 60A
B2
X4
842 RD/VT
21
X1
X51L Fuse Block - Instrument Panel Left
F52UA 10A
G6
K4B
3440 RD/WH
X158
3
4540 RD/BU
30
KR81 Auxiliary Battery Relay 1
H5
440 RD/BN
X1 4 (L5P)
X1 20 (L96/LC8)
K20 Engine Control Module
F57UA 15A
G5
X2
MW7/MYD
1840 RD/GN
MW7
66
K71 Transmission Control Module
MYD
X1 4
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
H3
L96/LC8
1840 RD/GN
2
Q13 Evaporative Emission Vent Solenoid Valve
F25UA 25A
J4
1640 RD/VT
25
F3UA 60A
B1
X5
442 RD/YE
1
K17 Electronic Brake Control Module

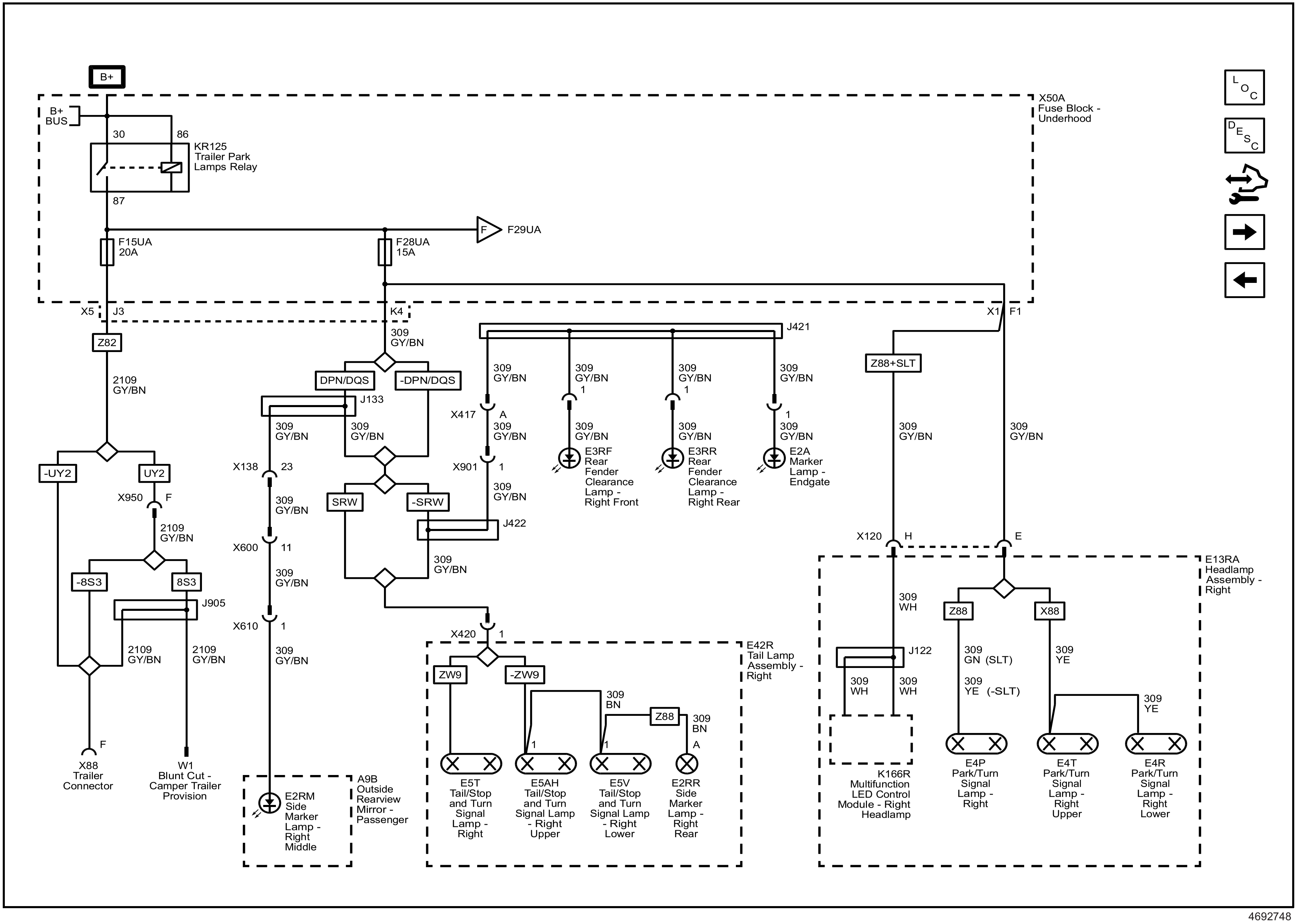
Power Distribution Schematics (2500/3500) (F6UA, F10UA, F36UA, F48UA and F54UA Fuses (2500/3500))


4692737
LOC
X50A Fuse Block - Underhood
B+
B+ BUS
F10UA 30A
X4 N1
C49
293 BN/VT
X307 1
293 BN/VT
E18 Rear Defogger Grid
KR5 Rear Defogger Relay
30
87
F36UA 15A
X3 L7
DL3/DL8/DPN/DQS
2267 BN/YE
J379
2267 BN/YE
X600 31
2267 BN/YE
X610 8
2267 BK
A9B Outside Rearview Mirror - Passenger
X1 A
E17P Outside Rearview Mirror Glass - Passenger
2267 BN/YE
X500 31
2267 BN/OG
X510 8
2267 BK
A9A Outside Rearview Mirror - Driver
X1 A
E17D Outside Rearview Mirror Glass - Driver
KR3 Horn Relay
F48UA 15A
J2
29 BN/GY
2
P12 Horn
KR11 Windshield Washer Pump Relay
F54UA 15A
X1 F2
228 GY/VT
1
G24 Windshield Washer Pump
F6UA 30A
X3 B1
NQF
1342 RD/GY
X61A Junction Block - Instrument Panel
X2 3
X9 11
1342 RD/GY
X3 C
K69 Transfer Case Control Module

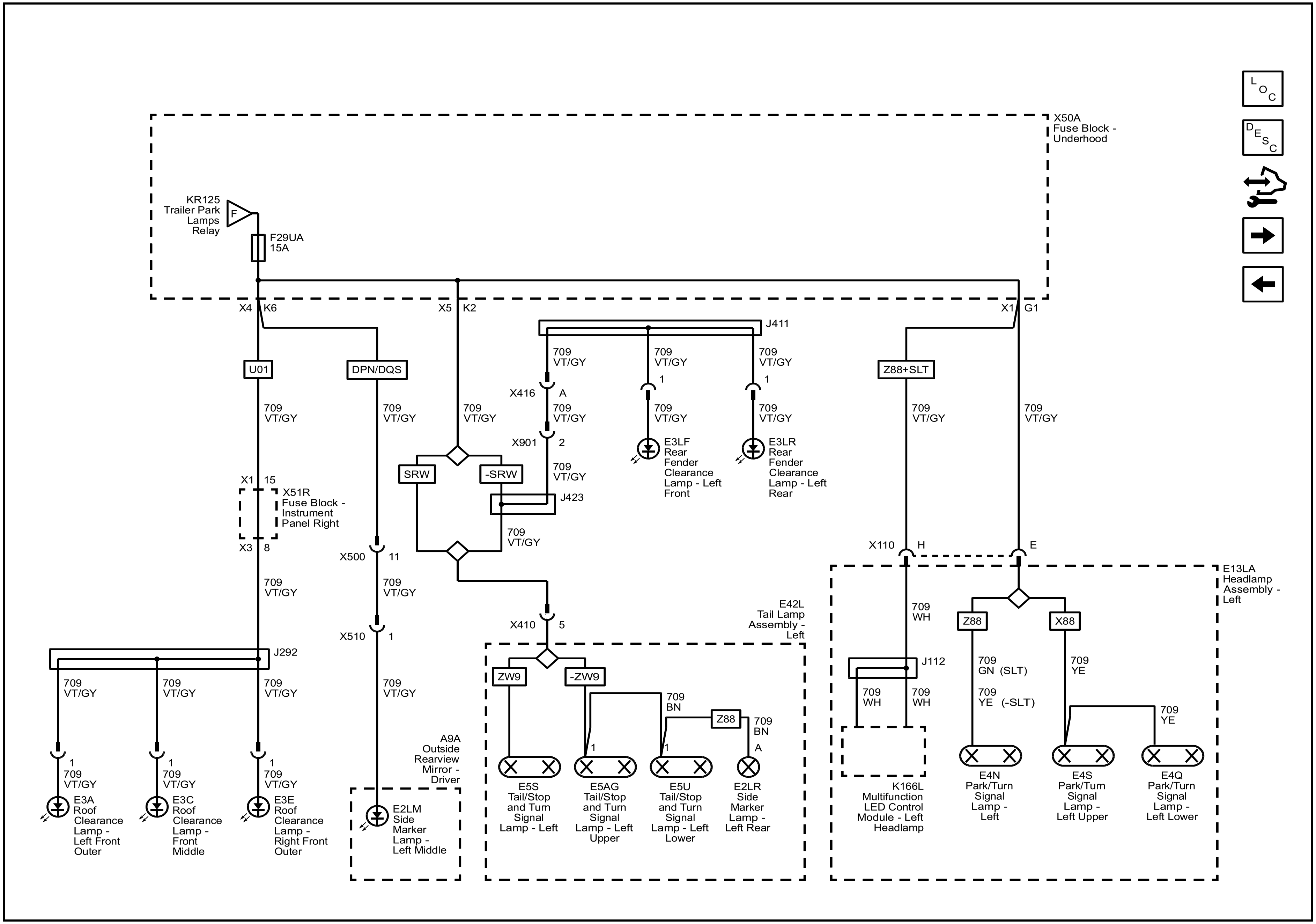
Power Distribution Schematics (2500/3500) (F14UA, F17UA and F58UA Fuses (2500/3500))


B+
B+ BUS
X50A Fuse Block - Underhood
KR48 Headlamp High Beam Relay
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F58UA 10A
F14UA 10A
F17UA 10A
X1
J4
H4
X5
K5
K6
Z82
Z82
1618 YE/GY
1619 GN/VT
-8S3/UY2
8S3/UY2
8S3/UY2
-8S3/UY2
X950
G
D
1618 YE/GY
1619 GN/VT
8S3
UY2
UY2
8S3
J901
J902
1618 YE/GY
1618 YE/GY
1619 GN/VT
1619 GN/VT
W1 Blunt Cut - Camper Trailer Provision
G
D
X88 Trailer Connector
711 WH
311 WH
X110
C
X120
C
Z88
X88
Z88
X88
711 BU (SLT)
711 WH (-SLT)
711 BU
311 BU (SLT)
311 WH (-SLT)
311 BU
E13LA Headlamp Assembly - Left
E13RA Headlamp Assembly - Right
5
1
5
1
K191L Headlamp High Beam Control Module - Left
E4E Headlamp - Left High Beam
K191R Headlamp High Beam Control Module - Right
E4F Headlamp - Right High Beam
L O C
4692742

Power Distribution Schematics (2500/3500) (F15UA and F28UA Fuses (2500/3500))


B+
B+ BUS
X50A Fuse Block - Underhood
30
86
KR125 Trailer Park Lamps Relay
87
F
F29UA
F15UA 20A
F28UA 15A
X5
J3
K4
X1
F1
Z82
2109 GY/BN
-UY2
UY2
X950
F
2109 GY/BN
-8S3
8S3
J905
2109 GY/BN
2109 GY/BN
F
X88 Trailer Connector
W1 Blunt Cut - Camper Trailer Provision
309 GY/BN
DPN/DQS
-DPN/DQS
J133
309 GY/BN
309 GY/BN
X138
23
309 GY/BN
X600
11
309 GY/BN
X610
1
309 GY/BN
E2RM Side Marker Lamp - Right Middle
A9B Outside Rearview Mirror - Passenger
SRW
-SRW
J422
309 GY/BN
X420
1
E42R Tail Lamp Assembly - Right
ZW9
-ZW9
309 BN
Z88
309 BN
A
1
1
E5T Tail/Stop and Turn Signal Lamp - Right
E5AH Tail/Stop and Turn Signal Lamp - Right Upper
E5V Tail/Stop and Turn Signal Lamp - Right Lower
E2RR Side Marker Lamp - Right Rear
J421
309 GY/BN
X417
A
309 GY/BN
X901
1
309 GY/BN
309 GY/BN
1
309 GY/BN
E3RF Rear Fender Clearance Lamp - Right Front
309 GY/BN
1
309 GY/BN
E3RR Rear Fender Clearance Lamp - Right Rear
309 GY/BN
1
309 GY/BN
E2A Marker Lamp - Endgate
Z88+SLT
309 GY/BN
309 GY/BN
X120
H
E
E13RA Headlamp Assembly - Right
309 WH
J122
309 WH
309 WH
K166R Multifunction LED Control Module - Right Headlamp
Z88
X88
309 GN (SLT)
309 YE (-SLT)
309 YE
309 YE
E4P Park/Turn Signal Lamp - Right
E4T Park/Turn Signal Lamp - Right Upper
E4R Park/Turn Signal Lamp - Right Lower
L O C
D E S C
4692748

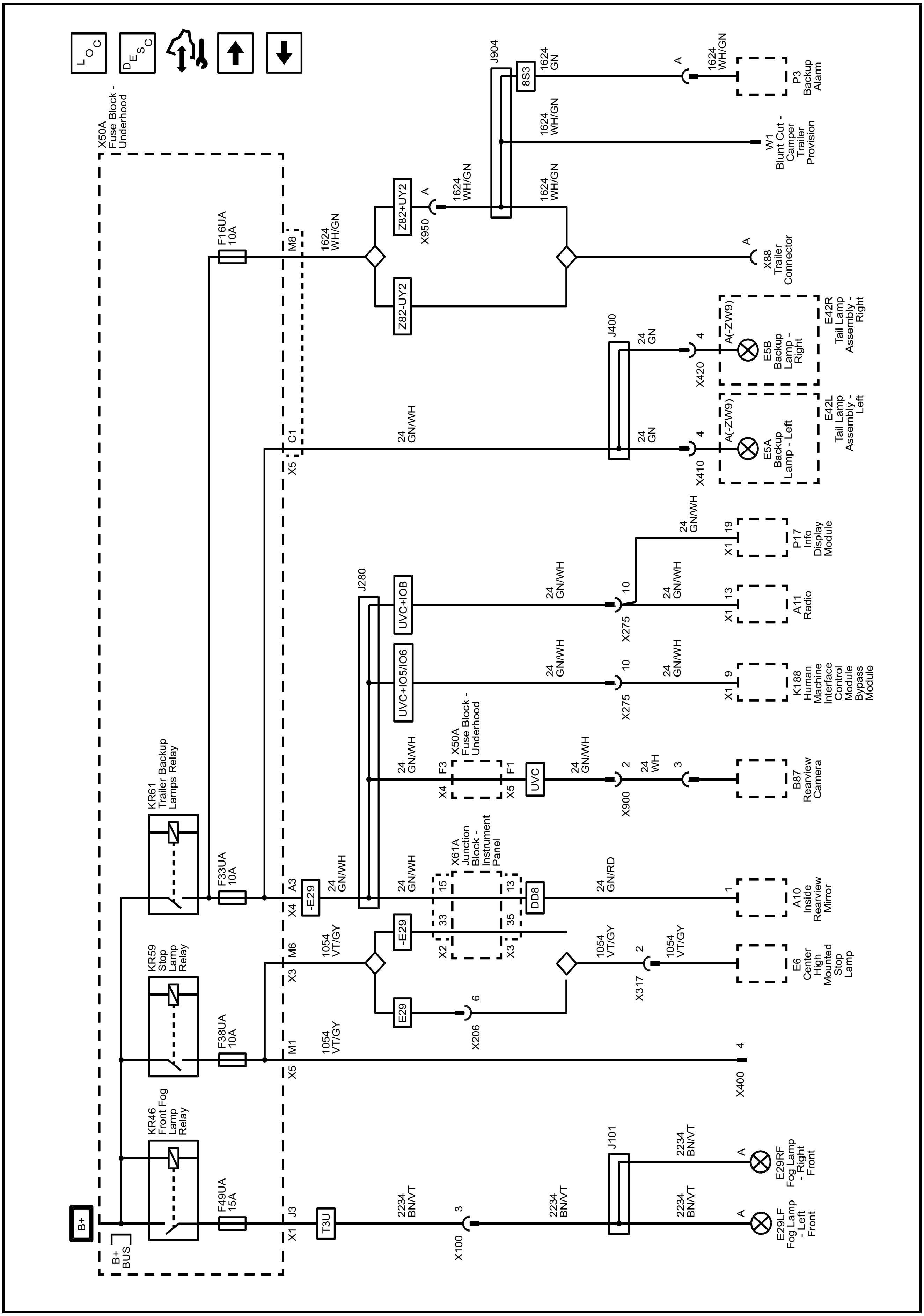
Power Distribution Schematics (2500/3500) (F29UA Fuse (2500/3500))



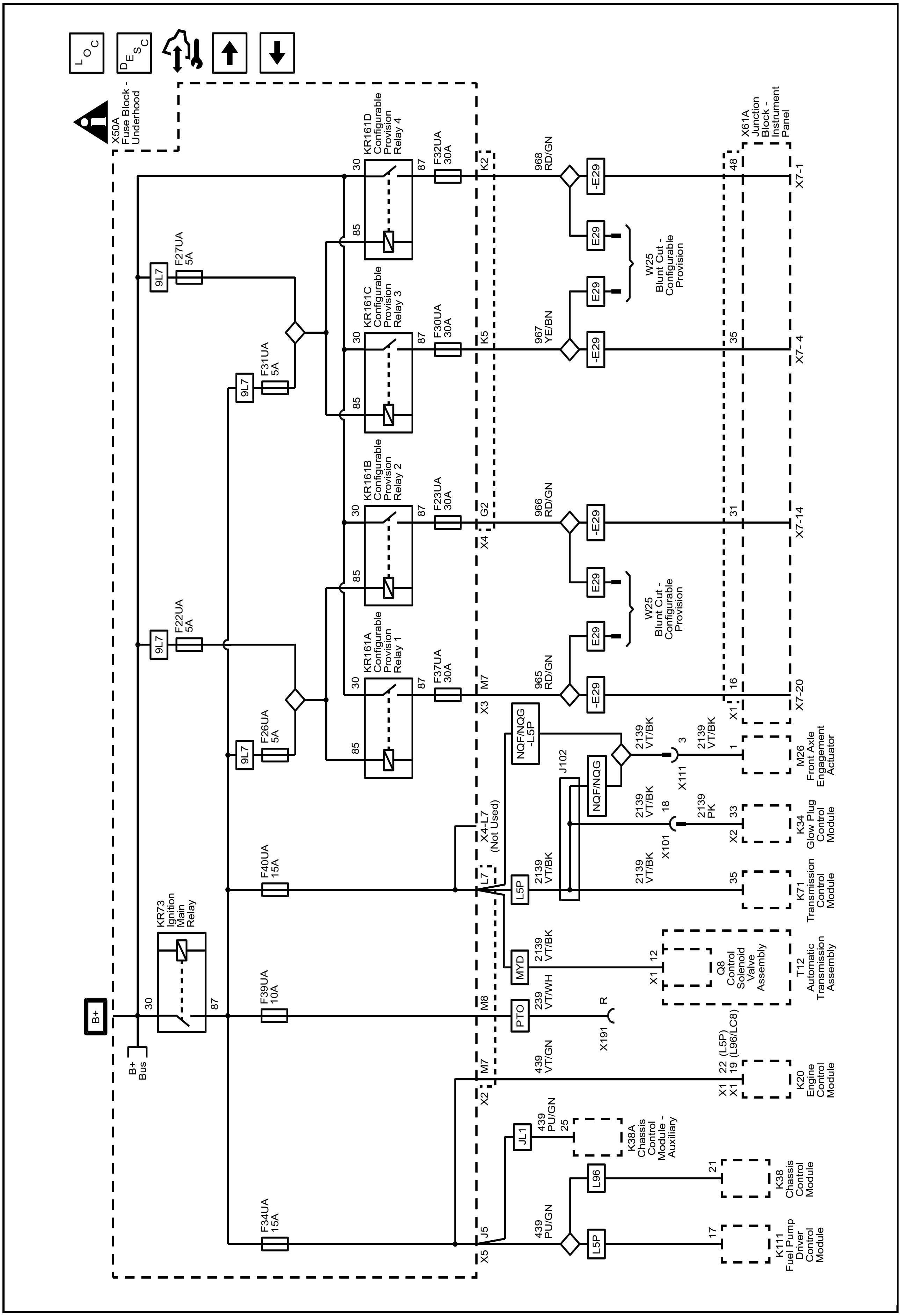
LOC
DESC
X50A Fuse Block - Underhood
KR125 Trailer Park Lamps Relay
F
F29UA 15A
X4 K6
X5 K2
X1 G1
J411
709 VT/GY
709 VT/GY
709 VT/GY
U01
DPN/DQS
Z88+SLT
X416 A
1
1
709 VT/GY
709 VT/GY
709 VT/GY
709 VT/GY
709 VT/GY
709 VT/GY
709 VT/GY
X901 2
709 VT/GY
E3LF Rear Fender Clearance Lamp - Left Front
E3LR Rear Fender Clearance Lamp - Left Rear
SRW
-SRW
J423
X1 15
X51R Fuse Block - Instrument Panel Right
X3 8
709 VT/GY
X500 11
X110 H
E
E13LA Headlamp Assembly - Left
709 VT/GY
709 VT/GY
709 WH
Z88
X88
X510 1
X410 5
E42L Tail Lamp Assembly - Left
J292
J112
709 GN (SLT)
709 YE
709 VT/GY
709 VT/GY
709 VT/GY
709 VT/GY
ZW9
-ZW9
709 BN
709 YE (-SLT)
709 WH
709 WH
Z88
709 BN
709 YE
A9A Outside Rearview Mirror - Driver
1
1
A
1
1
1
709 VT/GY
709 VT/GY
709 VT/GY
E3A Roof Clearance Lamp - Left Front Outer
E3C Roof Clearance Lamp - Front Middle
E3E Roof Clearance Lamp - Right Front Outer
E2LM Side Marker Lamp - Left Middle
E5S Tail/Stop and Turn Signal Lamp - Left
E5AG Tail/Stop and Turn Signal Lamp - Left Upper
E5U Tail/Stop and Turn Signal Lamp - Left Lower
E2LR Side Marker Lamp - Left Rear
K166L Multifunction LED Control Module - Left Headlamp
E4N Park/Turn Signal Lamp - Left
E4S Park/Turn Signal Lamp - Left Upper
E4Q Park/Turn Signal Lamp - Left Lower

4692753

Power Distribution Schematics (2500/3500) (F16UA, F33UA, F38UA and F49UA Fuses (2500/3500))

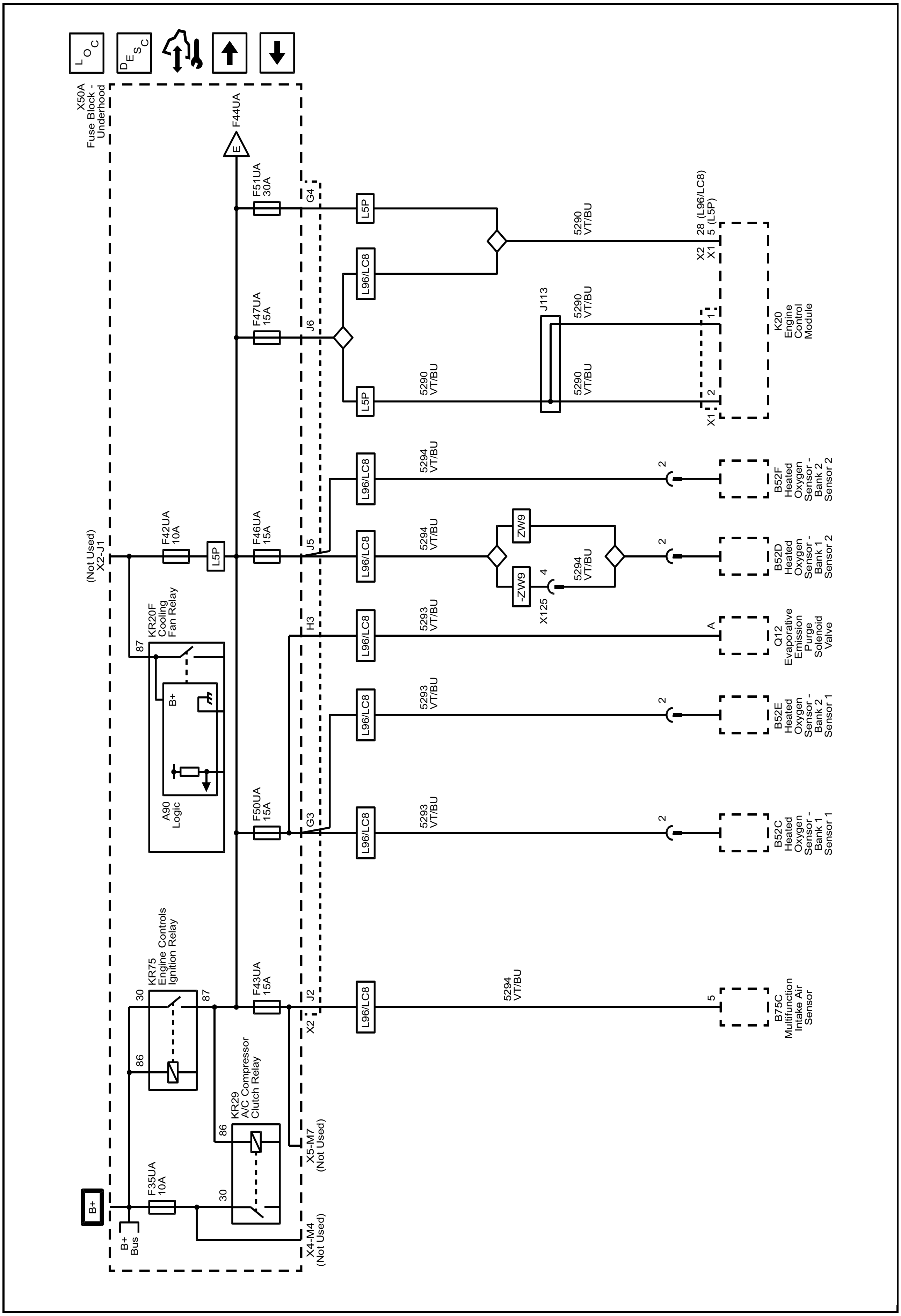

L O C
D E S C
B+
B+ BUS
X50A Fuse Block - Underhood
KR46 Front Fog Lamp Relay
KR59 Stop Lamp Relay
KR61 Trailer Backup Lamps Relay
F49UA 15A
F38UA 10A
F33UA 10A
F16UA 10A
X1 J3
X5 M1
X3 M6
X4 A3
X5 C1
M8
T3U
E29
-E29
2234 BN/VT
1054 VT/GY
24 GN/WH
24 GN/RD
24 GN
24 WH
1624 WH/GN
1624 GN
X100 3
X206 6
X400 4
X317 2
X900 2
X900 3
X275 10
X410 4
X420 4
X950 A
J101
J280
J400
J904
8S3
X61A Junction Block - Instrument Panel
X2 33
X2 15
X3 35
X3 13
DD8
X4 F3
X5 F1
UVC
UVC+IO5/IO6
UVC+IOB
Z82-UY2
Z82+UY2
A
E29LF Fog Lamp - Left Front
E29RF Fog Lamp - Right Front
E6 Center High Mounted Stop Lamp
A10 Inside Rearview Mirror
1
B87 Rearview Camera
K188 Human Machine Interface Control Module Bypass Module
X1 9
A11 Radio
X1 13
P17 Info Display Module
X1 19
E5A Backup Lamp - Left
E42L Tail Lamp Assembly - Left
A(-ZW9)
E5B Backup Lamp - Right
E42R Tail Lamp Assembly - Right
X88 Trailer Connector
W1 Blunt Cut - Camper Trailer Provision
P3 Backup Alarm
4692758

Power Distribution Schematics (2500/3500) (F22UA, F23UA, F26UA, F27UA, F30UA, F31UA, F32UA, F34UA, F37UA, F39UA and F40UA Fuses (2500/3500))

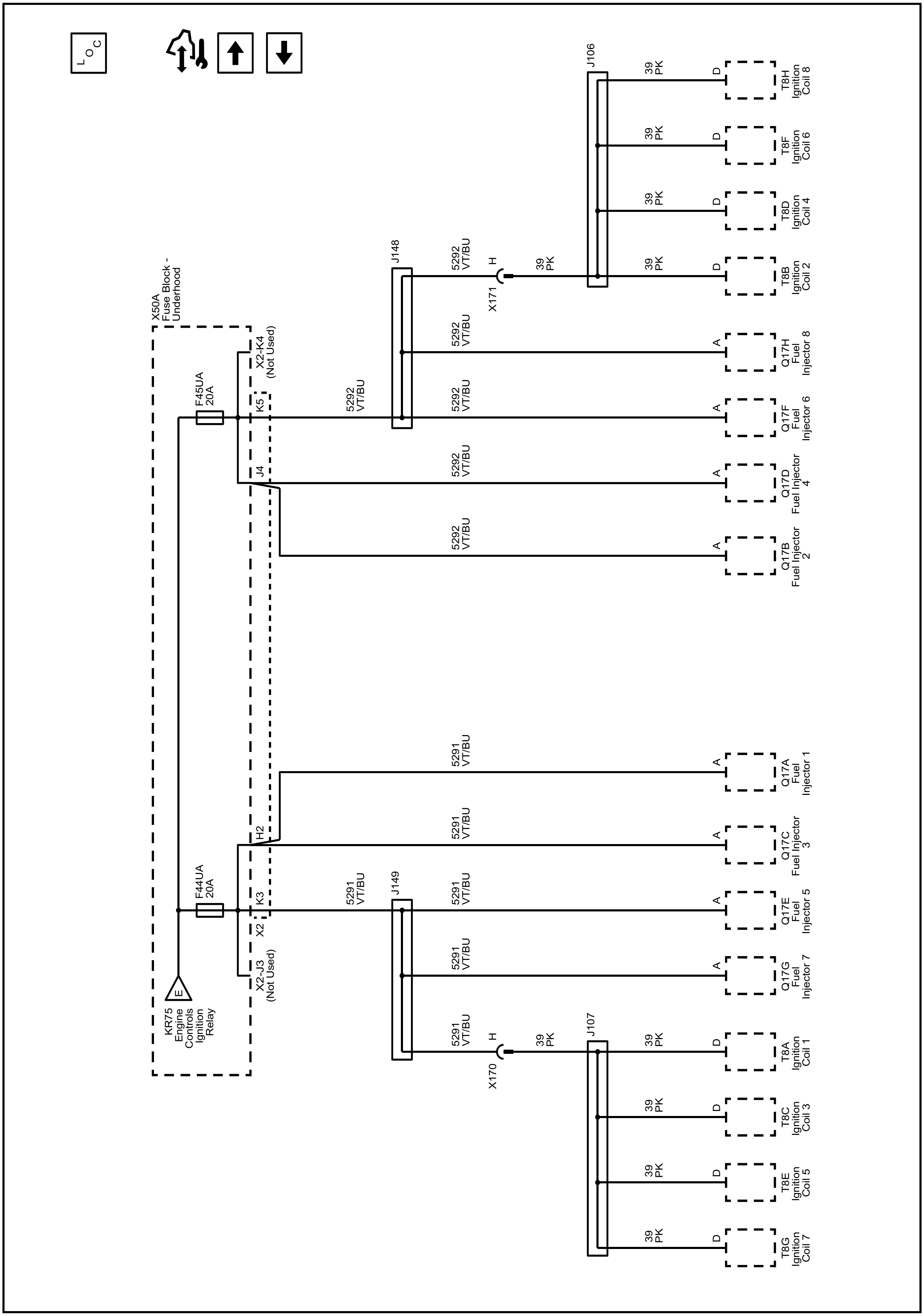


L O C
D E S C
X50A Fuse Block - Underhood
B+
B+ Bus
KR73 Ignition Main Relay
30
87
F39UA 10A
F40UA 15A
F34UA 15A
9L7
F22UA 5A
F26UA 5A
F27UA 5A
F31UA 5A
KR161A Configurable Provision Relay 1
KR161B Configurable Provision Relay 2
KR161C Configurable Provision Relay 3
KR161D Configurable Provision Relay 4
85
F37UA 30A
F23UA 30A
F30UA 30A
F32UA 30A
X3 M7
X4 G2
K5
K2
X4-L7 (Not Used)
L7
M8
X2 M7
X5 J5
965 RD/GN
966 RD/GN
967 YE/BN
968 RD/GN
-E29
E29
W25 Blunt Cut - Configurable Provision
X61A Junction Block - Instrument Panel
X1 16
31
35
48
X7-20
X7-14
X7- 4
X7-1
NQF/NQG -L5P
NQF/NQG
J102
L5P
MYD
PTO
2139 VT/BK
2139 PK
3
1
18
33
X2
X111
X101
M26 Front Axle Engagement Actuator
K34 Glow Plug Control Module
K71 Transmission Control Module
X1 12
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
239 VT/WH
R
X191
439 VT/GN
X1 22 (L5P)
X1 19 (L96/LC8)
K20 Engine Control Module
JL1
439 PU/GN
25
K38A Chassis Control Module - Auxiliary
L96
21
K38 Chassis Control Module
17
K111 Fuel Pump Driver Control Module
4693116

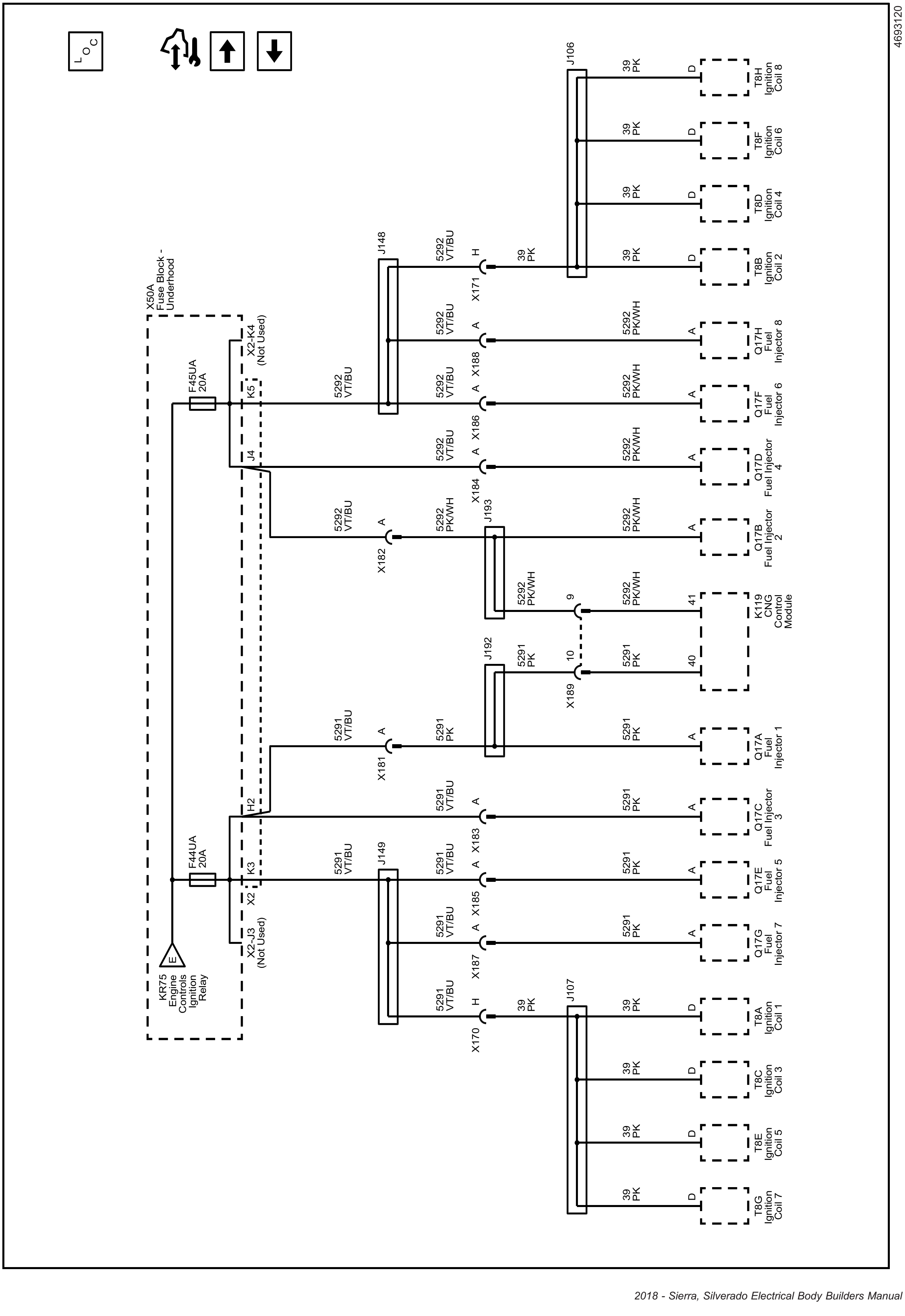
Power Distribution Schematics (2500/3500) (F35UA, F42UA, F43UA, F46UA, F47UA, F50UA and F51UA Fuses (2500/3500))


4693117
X50A Fuse Block - Underhood
B+
B+ Bus
F35UA 10A
F44UA
E
F51UA 30A
F47UA 15A
F42UA 10A
F46UA 15A
F50UA 15A
F43UA 15A
(Not Used) X2-J1
X4-M4 (Not Used)
X5-M7 (Not Used)
KR20F Cooling Fan Relay
A90 Logic
KR75 Engine Controls Ignition Relay
KR29 A/C Compressor Clutch Relay
30
86
87
B+
G4
J6
J5
H3
G3
J2
X2
L5P
L96/LC8
5290 VT/BU
5293 VT/BU
5294 VT/BU
J113
ZW9
-ZW9
X125
4
X2 28 (L96/LC8)
X1 5 (L5P)
X1
1
2
K20 Engine Control Module
B52F Heated Oxygen Sensor - Bank 2 Sensor 2
B52D Heated Oxygen Sensor - Bank 1 Sensor 2
Q12 Evaporative Emission Purge Solenoid Valve
A
B52E Heated Oxygen Sensor - Bank 2 Sensor 1
B52C Heated Oxygen Sensor - Bank 1 Sensor 1
B75C Multifunction Intake Air Sensor
5

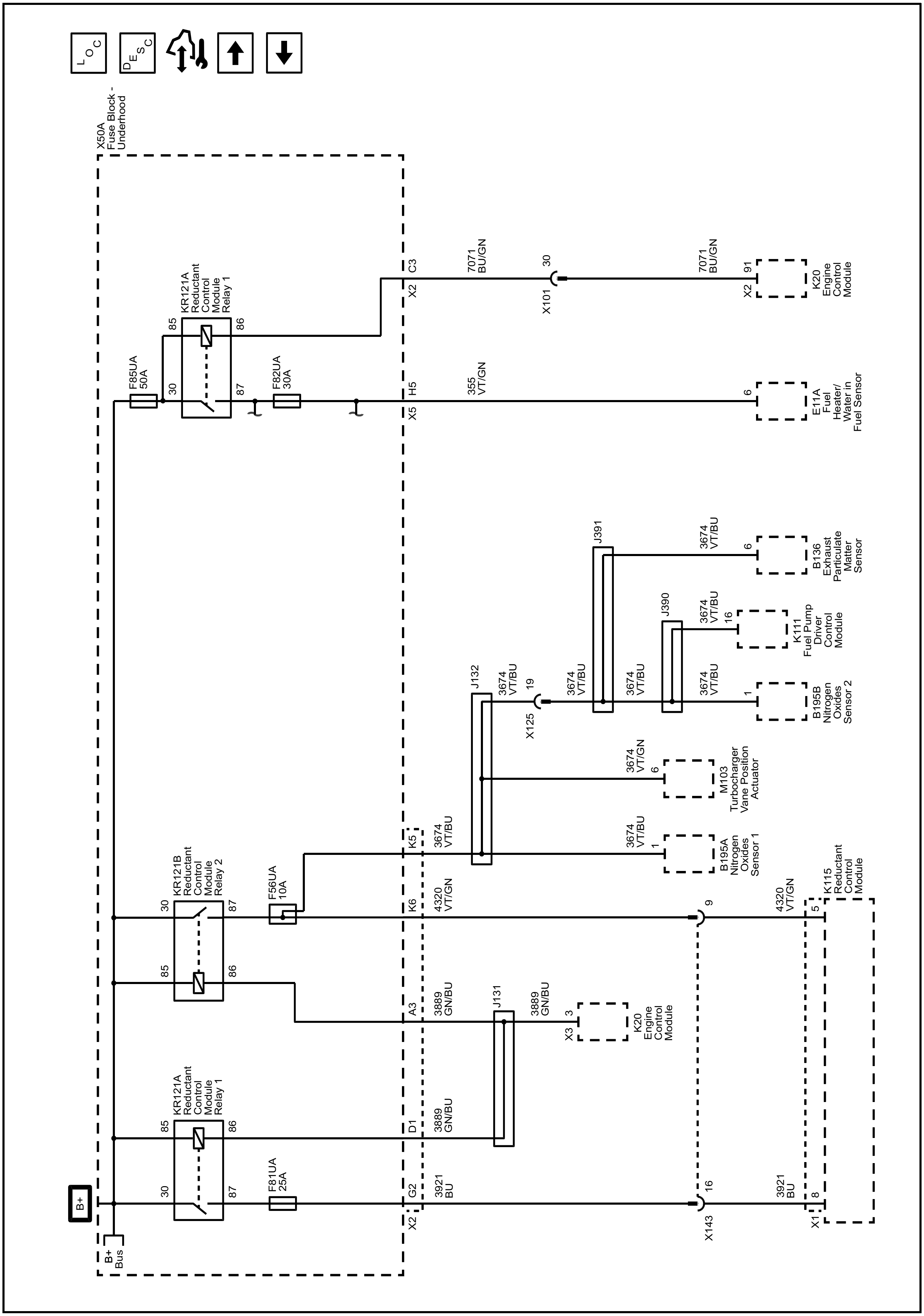
Power Distribution Schematics (2500/3500) (F44UA and F45UA Fuses (2500/3500 with L96))


4693118
LOC
X50A
Fuse Block - Underhood
KR75
Engine Controls Ignition Relay
E
F44UA
20A
F45UA
20A
X2-J3 (Not Used)
X2
K3
H2
J4
K5
X2-K4 (Not Used)
5291
VT/BU
5292
VT/BU
J149
J148
H
X170
X171
39
PK
J107
J106
A
D
Q17G Fuel Injector 7
Q17E Fuel Injector 5
Q17C Fuel Injector 3
Q17A Fuel Injector 1
Q17B Fuel Injector 2
Q17D Fuel Injector 4
Q17F Fuel Injector 6
Q17H Fuel Injector 8
T8A Ignition Coil 1
T8C Ignition Coil 3
T8E Ignition Coil 5
T8G Ignition Coil 7
T8B Ignition Coil 2
T8D Ignition Coil 4
T8F Ignition Coil 6
T8H Ignition Coil 8

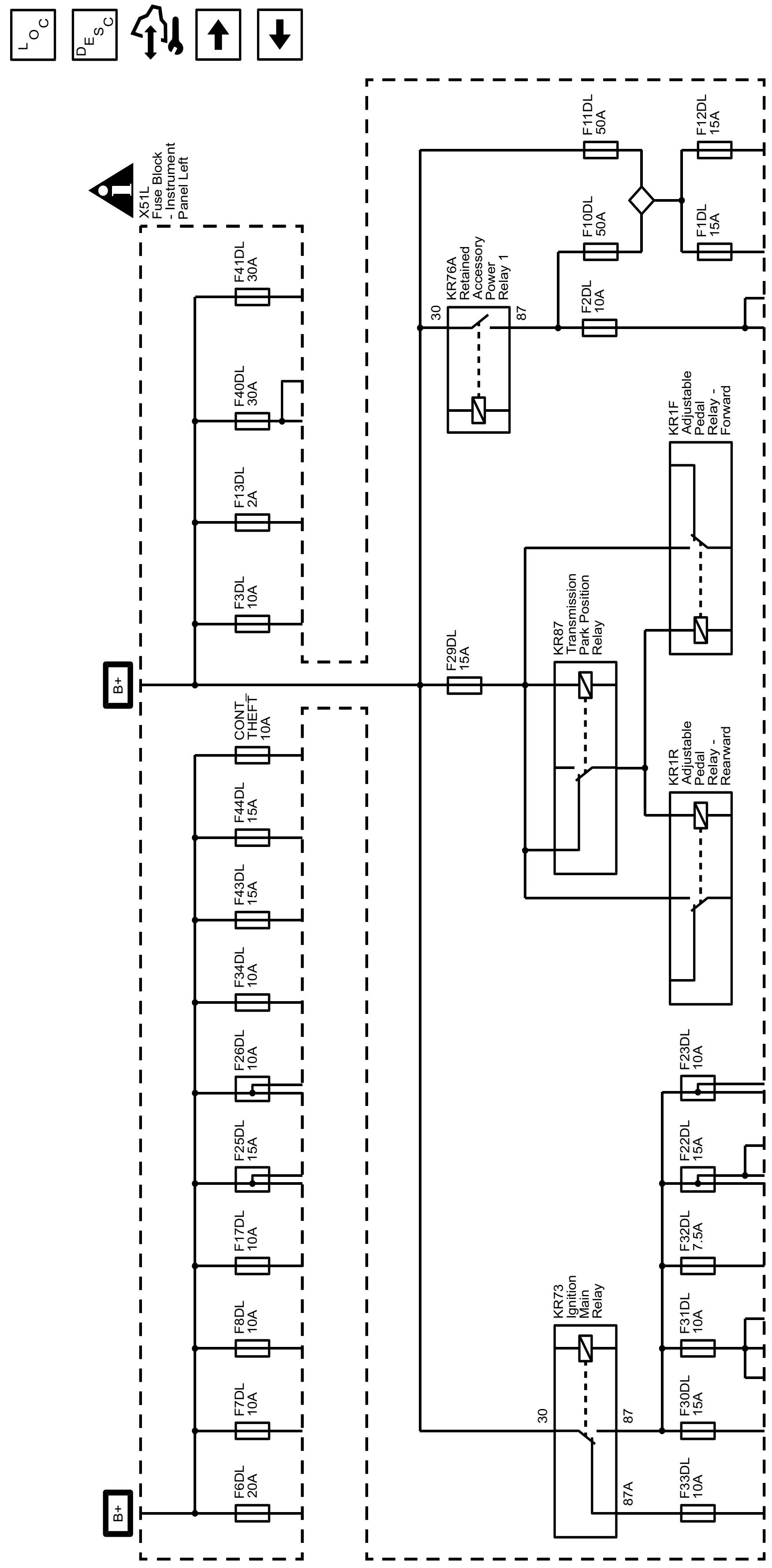
Power Distribution Schematics (2500/3500) (F44UA and F45UA Fuses (2500/3500 with LC8))


4693120
X50A Fuse Block - Underhood
KR75 Engine Controls Ignition Relay
E
F44UA 20A
F45UA 20A
X2
K3
H2
J4
K5
X2-J3 (Not Used)
X2-K4 (Not Used)
5291 VT/BU
5292 VT/BU
5291 PK
5292 PK/WH
39 PK
J106
J107
J148
J149
J192
J193
X170
X171
X181
X182
X183
X184
X185
X186
X187
X188
X189
A
H
D
9
10
40
41
T8A Ignition Coil 1
T8B Ignition Coil 2
T8C Ignition Coil 3
T8D Ignition Coil 4
T8E Ignition Coil 5
T8F Ignition Coil 6
T8G Ignition Coil 7
T8H Ignition Coil 8
Q17A Fuel Injector 1
Q17B Fuel Injector 2
Q17C Fuel Injector 3
Q17D Fuel Injector 4
Q17E Fuel Injector 5
Q17F Fuel Injector 6
Q17G Fuel Injector 7
Q17H Fuel Injector 8
K119 CNG Control Module

Power Distribution Schematics (2500/3500) (F56UA and F81UA (L5P))

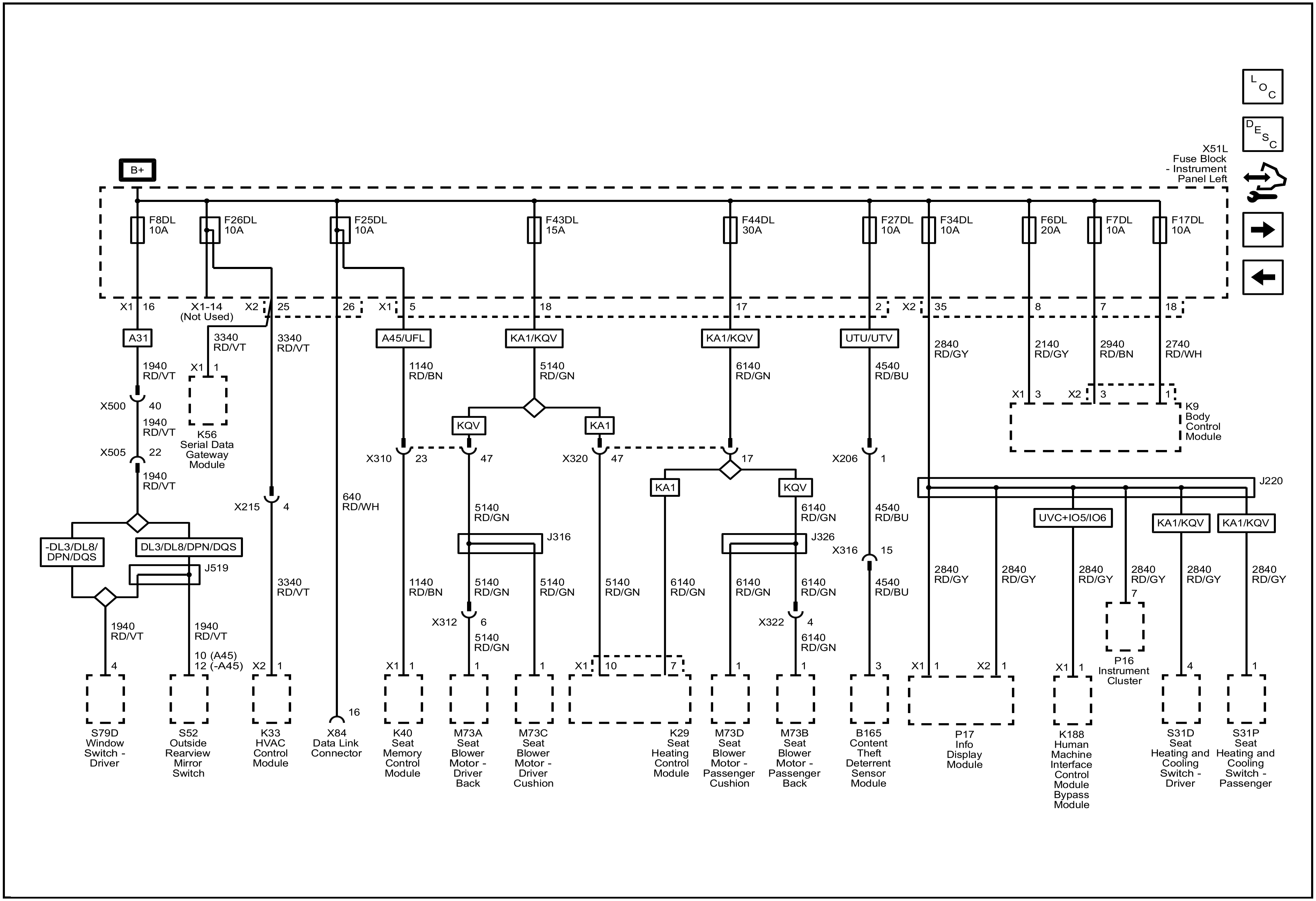

4693121
LOC
DESC
X50A Fuse Block - Underhood
B+
B+ Bus
F85UA 50A
KR121A Reductant Control Module Relay 1
30
85
86
87
F82UA 30A
C3
X2
7071 BU/GN
30
X101
7071 BU/GN
91
X2
K20 Engine Control Module
H5
X5
355 VT/GN
6
E11A Fuel Heater/ Water in Fuel Sensor
J391
3674 VT/BU
6
B136 Exhaust Particulate Matter Sensor
J390
3674 VT/BU
16
K111 Fuel Pump Driver Control Module
J132
3674 VT/BU
19
X125
3674 VT/BU
3674 VT/BU
3674 VT/BU
1
B195B Nitrogen Oxides Sensor 2
3674 VT/GN
6
M103 Turbocharger Vane Position Actuator
K5
3674 VT/BU
3674 VT/BU
1
B195A Nitrogen Oxides Sensor 1
KR121B Reductant Control Module Relay 2
F56UA 10A
K6
4320 VT/GN
9
4320 VT/GN
5
K115 Reductant Control Module
A3
3889 GN/BU
J131
3889 GN/BU
3
X3
K20 Engine Control Module
KR121A Reductant Control Module Relay 1
D1
3889 GN/BU
F81UA 25A
G2
X2
3921 BU
16
X143
3921 BU
8
X1

Power Distribution Schematics (2500/3500) (B+ Bus X51L Fuse Block - Instrument Panel Left (2500/3500))


LOC
DESC
X51L Fuse Block - Instrument Panel Left
B+
B+
F41DL 30A
F40DL 30A
F13DL 2A
F3DL 10A
CONT_THEFT 10A
F44DL 15A
F43DL 15A
F34DL 10A
F26DL 10A
F25DL 15A
F17DL 10A
F8DL 10A
F7DL 10A
F6DL 20A
F11DL 50A
F12DL 15A
F10DL 50A
F1DL 15A
KR76A Retained Accessory Power Relay 1
30
87
F2DL 10A
KR1F Adjustable Pedal Relay - Forward
F29DL 15A
KR87 Transmission Park Position Relay
KR1R Adjustable Pedal Relay - Rearward
F23DL 10A
F22DL 15A
F32DL 7.5A
F31DL 10A
KR73 Ignition Main Relay
30
87
87A
F30DL 15A
F33DL 10A

4693125

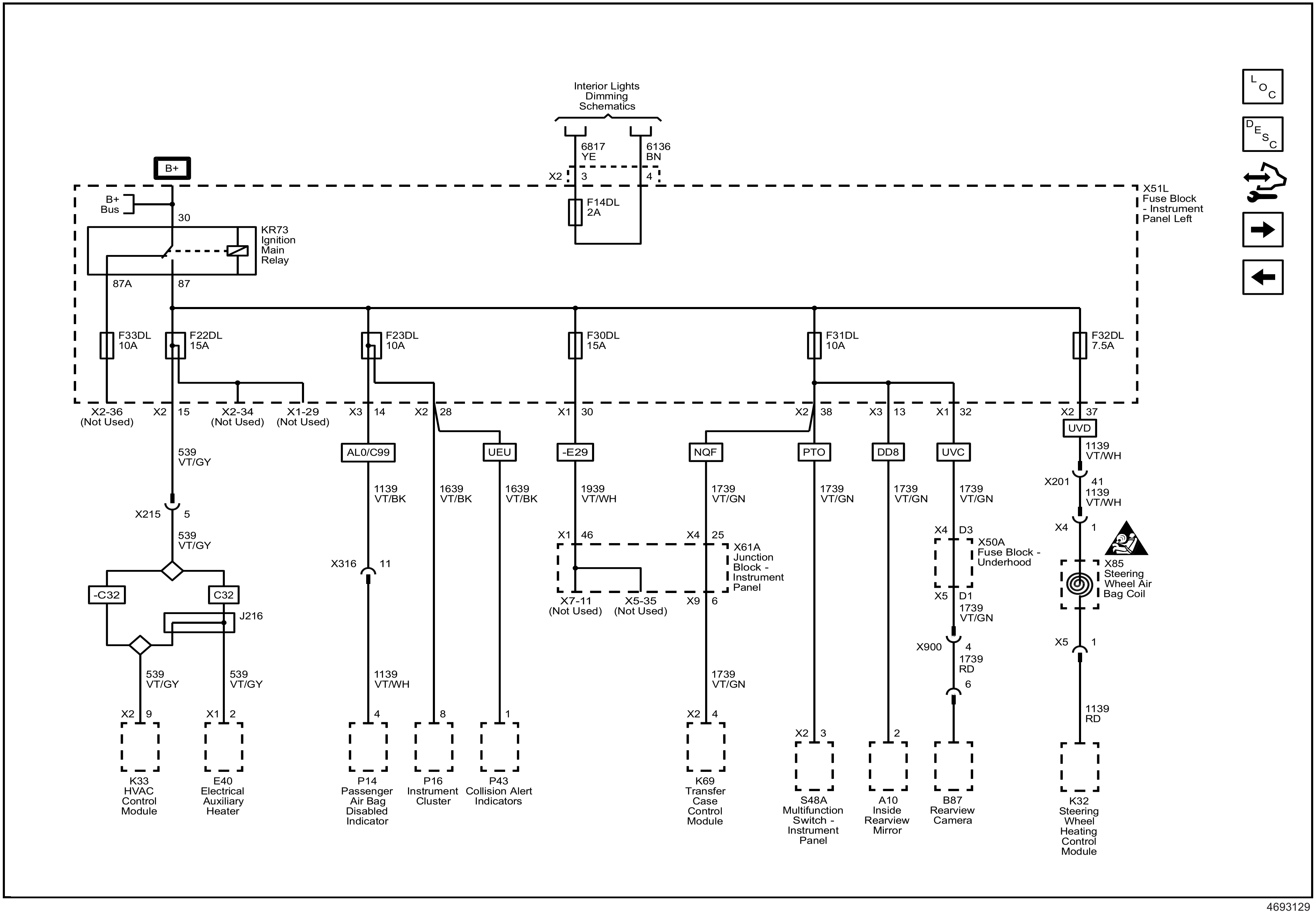
Power Distribution Schematics (2500/3500) (F6DL, F7DL, F8DL, F17DL, F25DL, F26DL, F34DL, F43DL and F44DL Fuses (2500/3500))



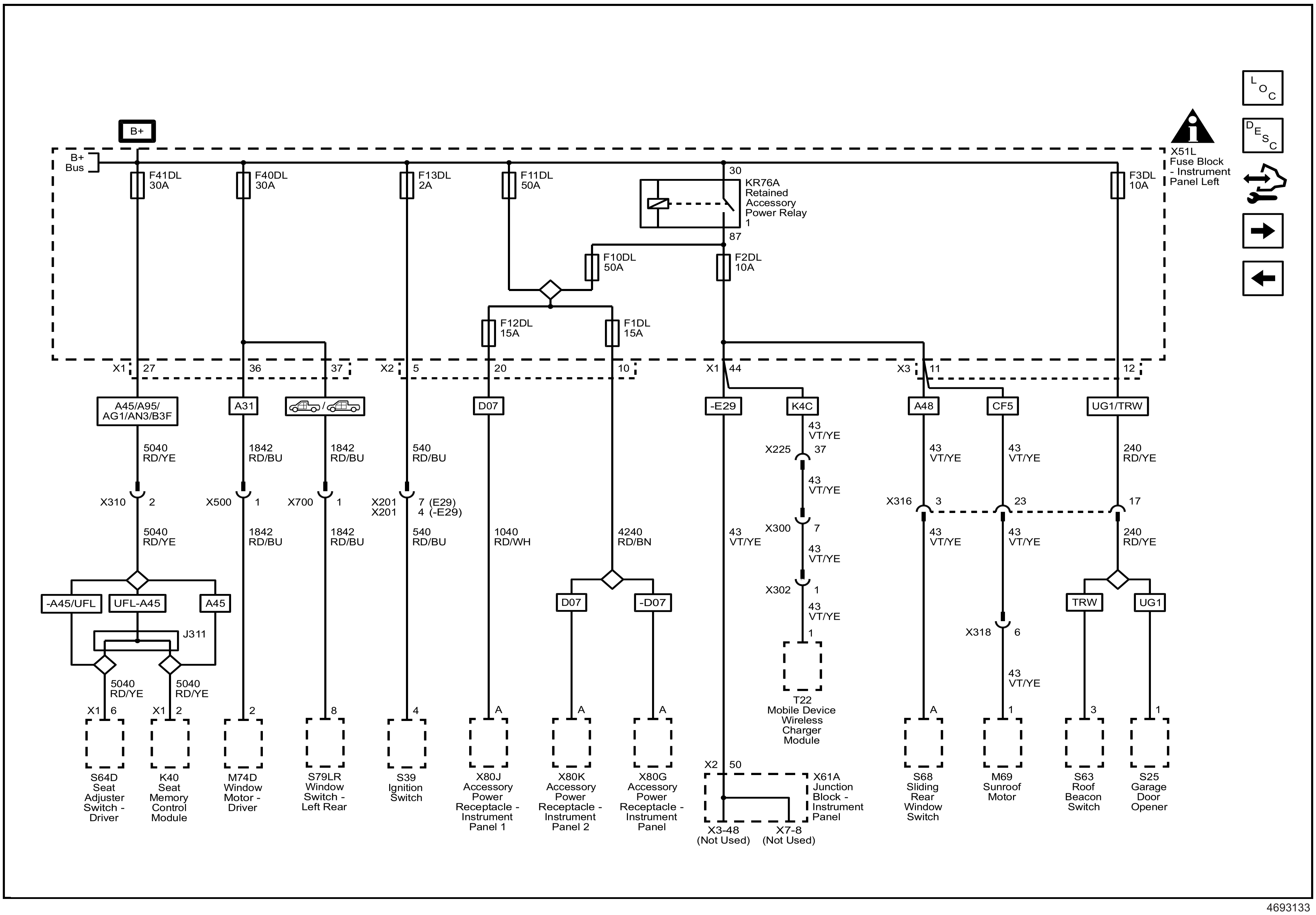
B+
X51L Fuse Block - Instrument Panel Left
F8DL 10A
F26DL 10A
F25DL 10A
F43DL 15A
F44DL 30A
F27DL 10A
F34DL 10A
F6DL 20A
F7DL 10A
F17DL 10A
X1 16
X1-14 (Not Used)
X2 25
26
X1 5
18
17
2
X2 35
8
7
18
A31
3340 RD/VT
3340 RD/VT
A45/UFL
KA1/KQV
KA1/KQV
UTU/UTV
2840 RD/GY
2140 RD/GY
2940 RD/BN
2740 RD/WH
1940 RD/VT
X1 1
1140 RD/BN
5140 RD/GN
6140 RD/GN
4540 RD/BU
X1 3
X2 3
1
K9 Body Control Module
X500 40
1940 RD/VT
K56 Serial Data Gateway Module
KQV
KA1
X505 22
X310 23
47
X320 47
17
X206 1
1940 RD/VT
J220
X215 4
640 RD/WH
5140 RD/GN
KA1
KQV
6140 RD/GN
4540 RD/BU
UVC+IO5/IO6
KA1/KQV
KA1/KQV
-DL3/DL8/DPN/DQS
DL3/DL8/DPN/DQS
J316
J326
X316 15
J519
3340 RD/VT
1140 RD/BN
5140 RD/GN
5140 RD/GN
5140 RD/GN
6140 RD/GN
6140 RD/GN
6140 RD/GN
4540 RD/BU
2840 RD/GY
2840 RD/GY
2840 RD/GY
2840 RD/GY
2840 RD/GY
2840 RD/GY
7
X312 6
X322 4
5140 RD/GN
6140 RD/GN
1940 RD/VT
1940 RD/VT
10 (A45)
12 (-A45)
4
X2 1
X1 1
1
1
X1 10
7
1
1
3
X1 1
X2 1
X1 1
4
1
16
P16 Instrument Cluster
S79D Window Switch - Driver
S52 Outside Rearview Mirror Switch
K33 HVAC Control Module
X84 Data Link Connector
K40 Seat Memory Control Module
M73A Seat Blower Motor - Driver Back
M73C Seat Blower Motor - Driver Cushion
K29 Seat Heating Control Module
M73D Seat Blower Motor - Passenger Cushion
M73B Seat Blower Motor - Passenger Back
B165 Content Theft Deterrent Sensor Module
P17 Info Display Module
K188 Human Machine Interface Control Module Bypass Module
S31D Seat Heating and Cooling Switch - Driver
S31P Seat Heating and Cooling Switch - Passenger
LOC
DESC

4693127

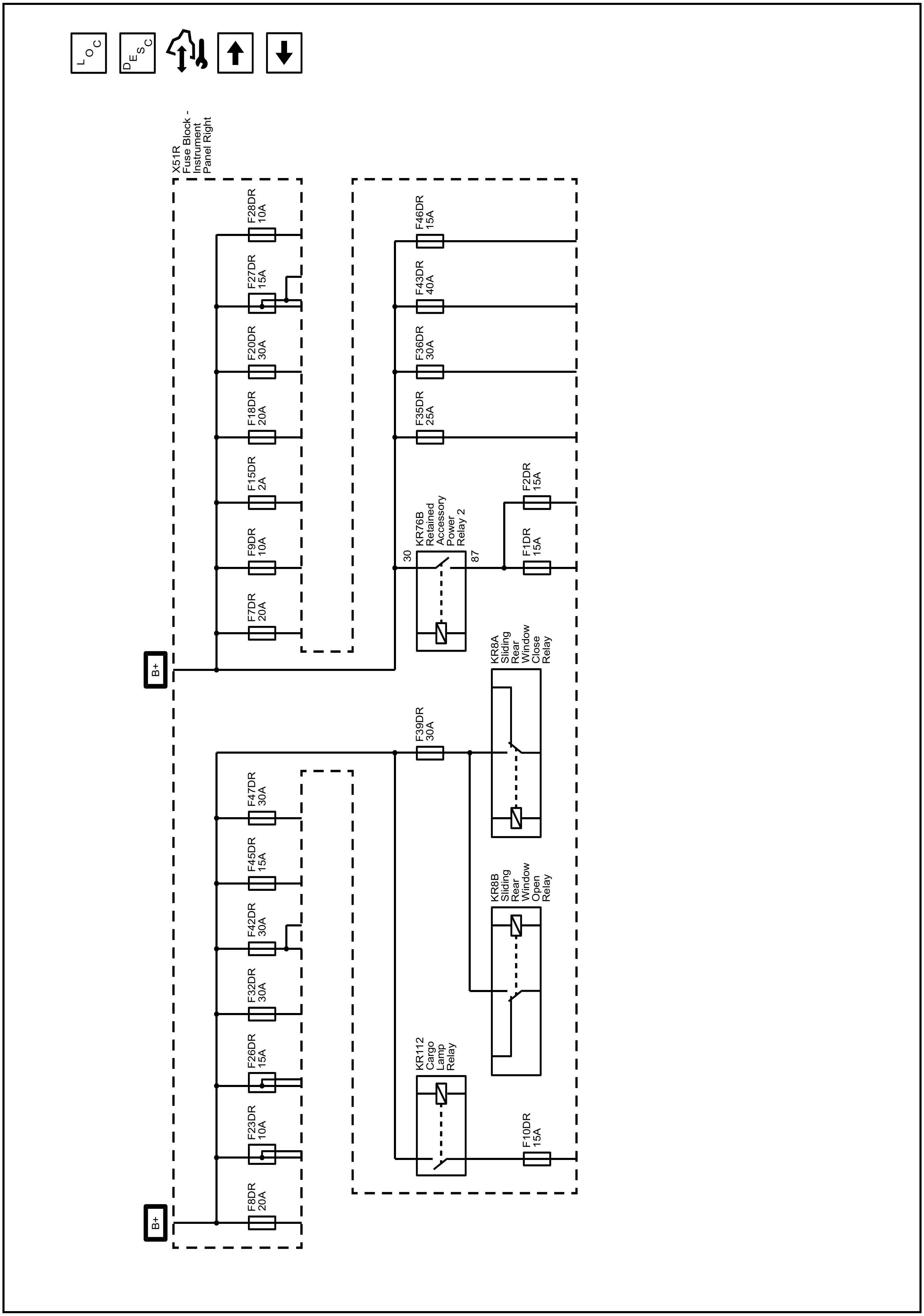
Power Distribution Schematics (2500/3500) (F14DL, F22DL, F23DL, F30DL, F31DL, F32DL and F33DL Fuses (2500/3500))


Interior Lights Dimming Schematics
6817 YE
6136 BN
X2 3
4
B+
B+ Bus
30
KR73 Ignition Main Relay
87A
87
F14DL 2A
X51L Fuse Block - Instrument Panel Left
F33DL 10A
F22DL 15A
F23DL 10A
F30DL 15A
F31DL 10A
F32DL 7.5A
X2-36 (Not Used)
X2 15
X2-34 (Not Used)
X1-29 (Not Used)
X3 14
X2 28
X1 30
X2 38
X3 13
X1 32
X2 37
539 VT/GY
AL0/C99
UEU
-E29
NQF
PTO
DD8
UVC
UVD
1139 VT/BK
1639 VT/BK
1639 VT/BK
1939 VT/WH
1739 VT/GN
1739 VT/GN
1739 VT/GN
1739 VT/GN
1139 VT/WH
X215 5
539 VT/GY
X201 41
1139 VT/WH
X1 46
X4 25
X61A Junction Block - Instrument Panel
X4 D3
X50A Fuse Block - Underhood
X4 1
X85 Steering Wheel Air Bag Coil
X316 11
-C32
C32
J216
X7-11 (Not Used)
X5-35 (Not Used)
X9 6
X5 D1
1739 VT/GN
X900 4
1739 RD
6
X5 1
1139 RD
539 VT/GY
539 VT/GY
1139 VT/WH
1739 VT/GN
X2 9
X1 2
4
8
1
X2 4
X2 3
2
K33 HVAC Control Module
E40 Electrical Auxiliary Heater
P14 Passenger Air Bag Disabled Indicator
P16 Instrument Cluster
P43 Collision Alert Indicators
K69 Transfer Case Control Module
S48A Multifunction Switch - Instrument Panel
A10 Inside Rearview Mirror
B87 Rearview Camera
K32 Steering Wheel Heating Control Module
LOC
DESC
4693129

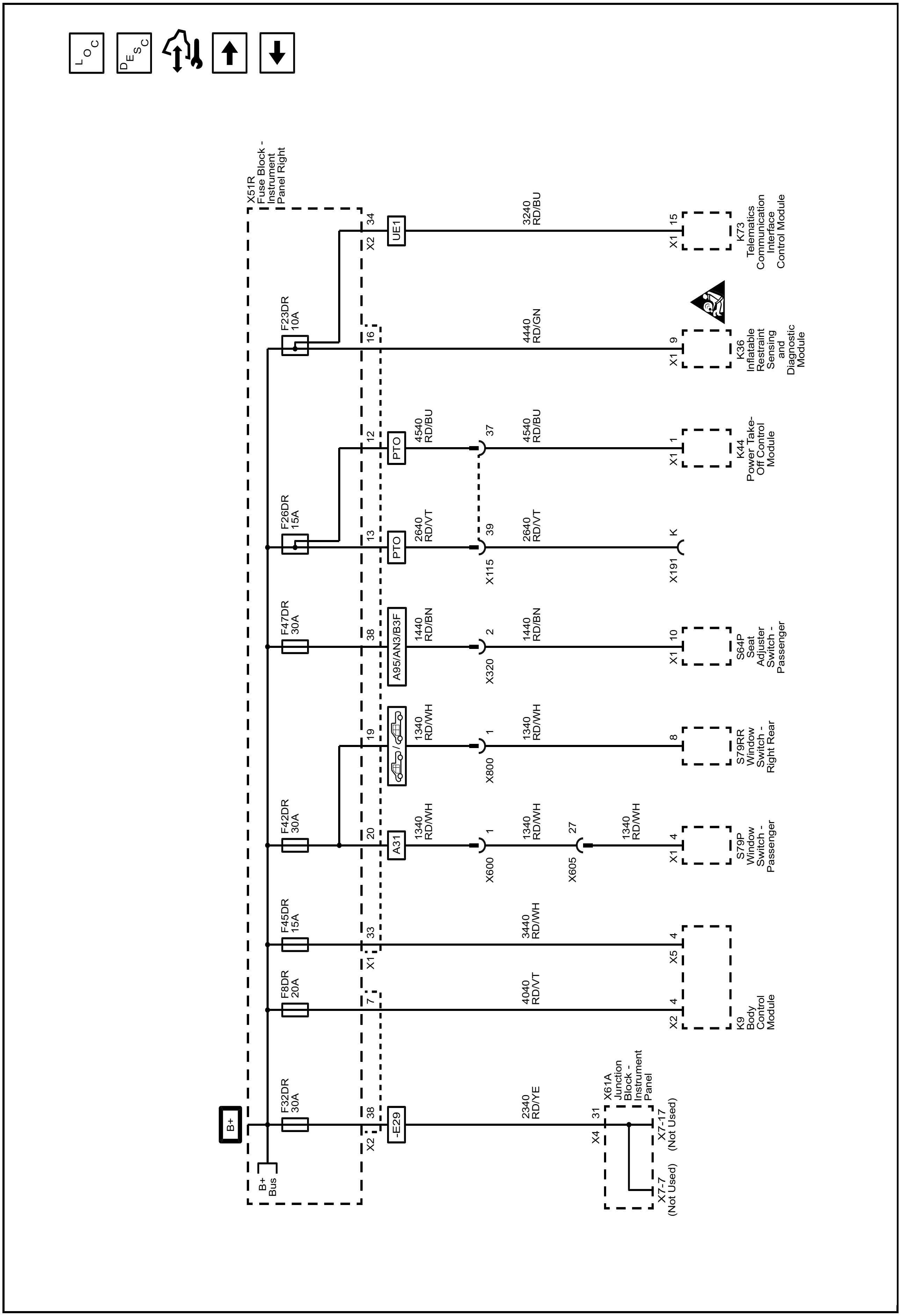
Power Distribution Schematics (2500/3500) (F1DL, F2DL, F3DL, F10DL, F11DL, F12DL, F13DL, F40DL and F41DL Fuses (2500/3500))


B+
B+ Bus
F41DL 30A
F40DL 30A
F13DL 2A
F11DL 50A
30
KR76A Retained Accessory Power Relay
1
87
F10DL 50A
F2DL 10A
F12DL 15A
F1DL 15A
F3DL 10A
X51L Fuse Block - Instrument Panel Left
LOC
DESC
X1 27
36
37
X2 5
20
10
X1 44
X3 11
12
A45/A95/AG1/AN3/B3F
A31
D07
-E29
K4C
A48
CF5
UG1/TRW
5040 RD/YE
1842 RD/BU
1842 RD/BU
540 RD/BU
43 VT/YE
X225 37
43 VT/YE
43 VT/YE
240 RD/YE
X310 2
X500 1
X700 1
X201 7 (E29)
X201 4 (-E29)
X316 3
23
17
5040 RD/YE
1842 RD/BU
1842 RD/BU
540 RD/BU
1040 RD/WH
4240 RD/BN
43 VT/YE
X300 7
43 VT/YE
43 VT/YE
43 VT/YE
240 RD/YE
X302 1
43 VT/YE
-A45/UFL
UFL-A45
A45
J311
D07
-D07
TRW
UG1
X318 6
43 VT/YE
5040 RD/YE
5040 RD/YE
1
X1 6
X1 2
2
8
4
A
A
A
A
1
3
1
T22 Mobile Device Wireless Charger Module
S64D Seat Adjuster Switch - Driver
K40 Seat Memory Control Module
M74D Window Motor - Driver
S79LR Window Switch - Left Rear
S39 Ignition Switch
X80J Accessory Power Receptacle - Instrument Panel 1
X80K Accessory Power Receptacle - Instrument Panel 2
X80G Accessory Power Receptacle - Instrument Panel
X2 50
X61A Junction Block - Instrument Panel
X3-48 (Not Used)
X7-8 (Not Used)
S68 Sliding Rear Window Switch
M69 Sunroof Motor
S63 Roof Beacon Switch
S25 Garage Door Opener
4693133

Power Distribution Schematics (2500/3500) (B+ Bus X51R Fuse Block - Instrument Panel Right (2500/3500))

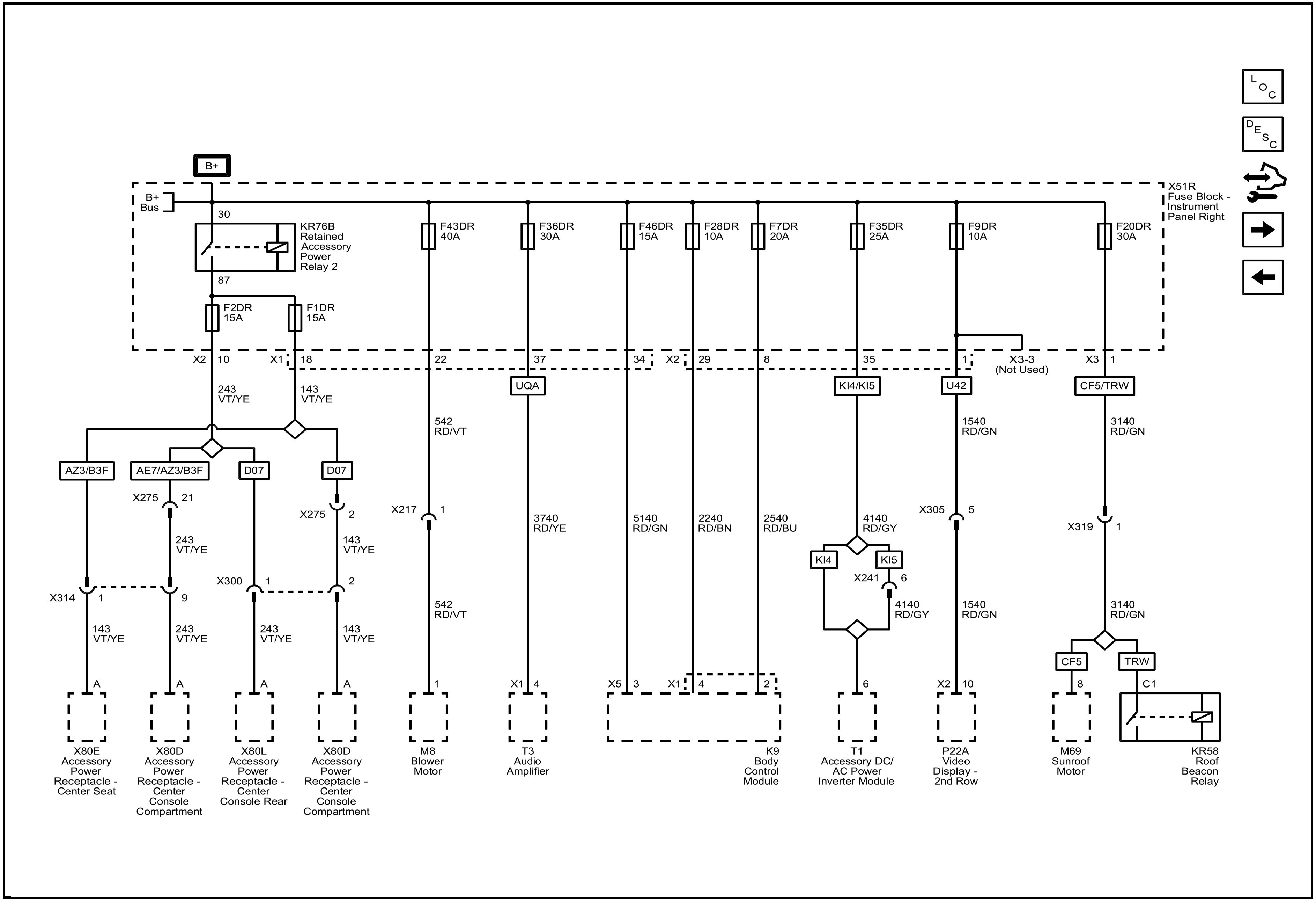

4693138
LOC
DESC
X51R Fuse Block - Instrument Panel Right
B+
B+
F28DR 10A
F27DR 15A
F20DR 30A
F18DR 20A
F15DR 2A
F9DR 10A
F7DR 20A
F46DR 15A
F43DR 40A
F36DR 30A
F35DR 25A
KR76B Retained Accessory Power Relay 2
30
87
F2DR 15A
F1DR 15A
F39DR 30A
KR8A Sliding Rear Window Close Relay
KR8B Sliding Rear Window Open Relay
F47DR 30A
F45DR 15A
F42DR 30A
F32DR 30A
F26DR 15A
F23DR 10A
F8DR 20A
KR112 Cargo Lamp Relay
F10DR 15A

Power Distribution Schematics (2500/3500) (F8DR, F23DR, F26DR, F32DR, F42DR, F45DR and F47DR Fuses (2500/3500))

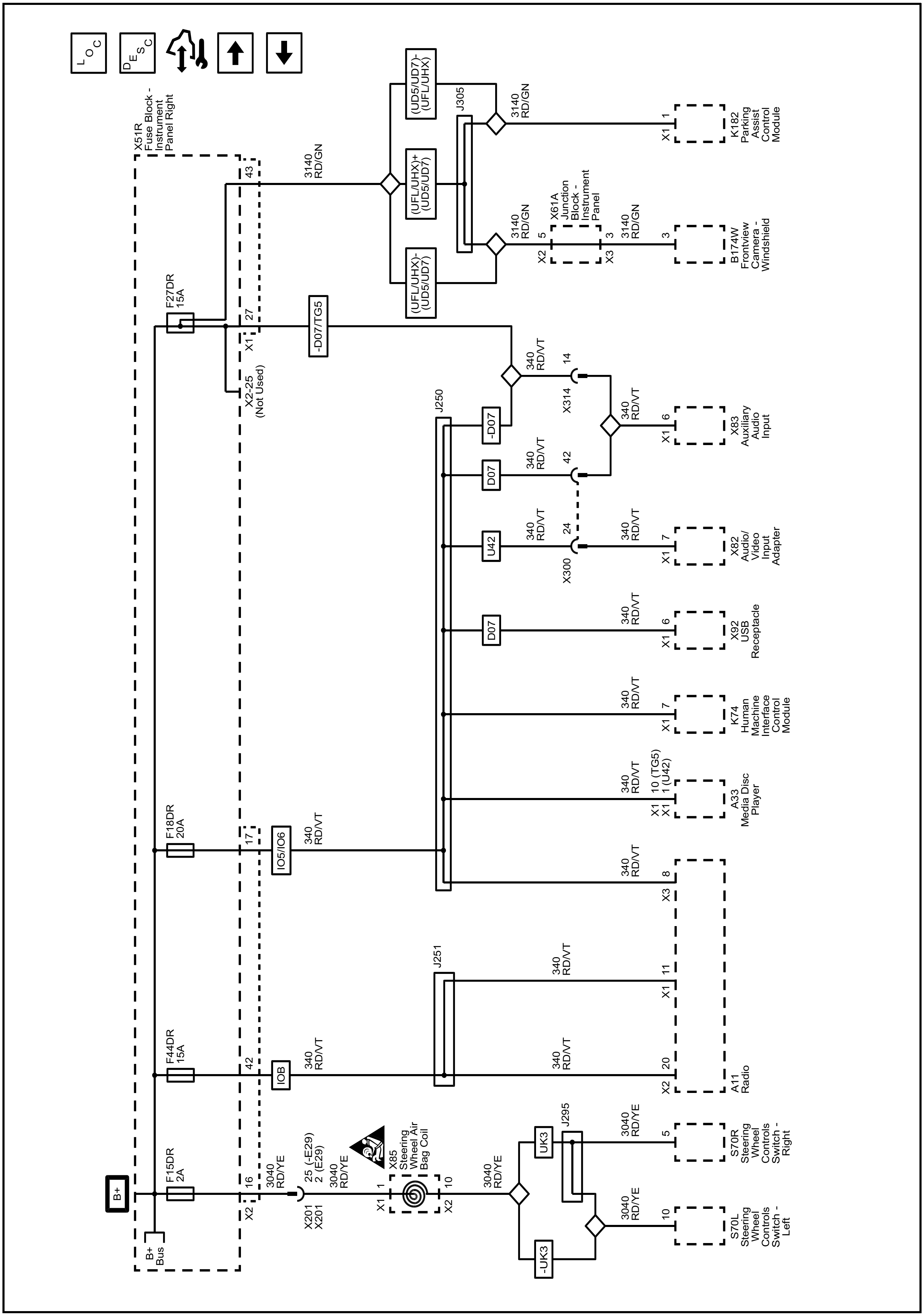


4693140
X51R Fuse Block - Instrument Panel Right
B+
B+ Bus
F32DR 30A
F8DR 20A
F45DR 15A
F42DR 30A
F47DR 30A
F26DR 15A
F23DR 10A
X2 38
7
X1 33
20
19
38
13
12
16
X2 34
-E29
A31
A95/AN3/B3F
PTO
PTO
UE1
2340 RD/YE
4040 RD/VT
3440 RD/WH
1340 RD/WH
1340 RD/WH
1440 RD/BN
2640 RD/VT
4540 RD/BU
4440 RD/GN
3240 RD/BU
X600 1
X605 27
X800 1
X320 2
X115 39
37
X61A Junction Block - Instrument Panel
X4 31
X7-17 (Not Used)
X7-7 (Not Used)
X2 4
X5 4
K9 Body Control Module
X1 4
S79P Window Switch - Passenger
8
S79RR Window Switch - Right Rear
X1 10
S64P Seat Adjuster Switch - Passenger
X191 K
X1 1
K44 Power Take-Off Control Module
X1 9
K36 Inflatable Restraint Sensing and Diagnostic Module
X1 15
K73 Telematics Communication Interface Control Module

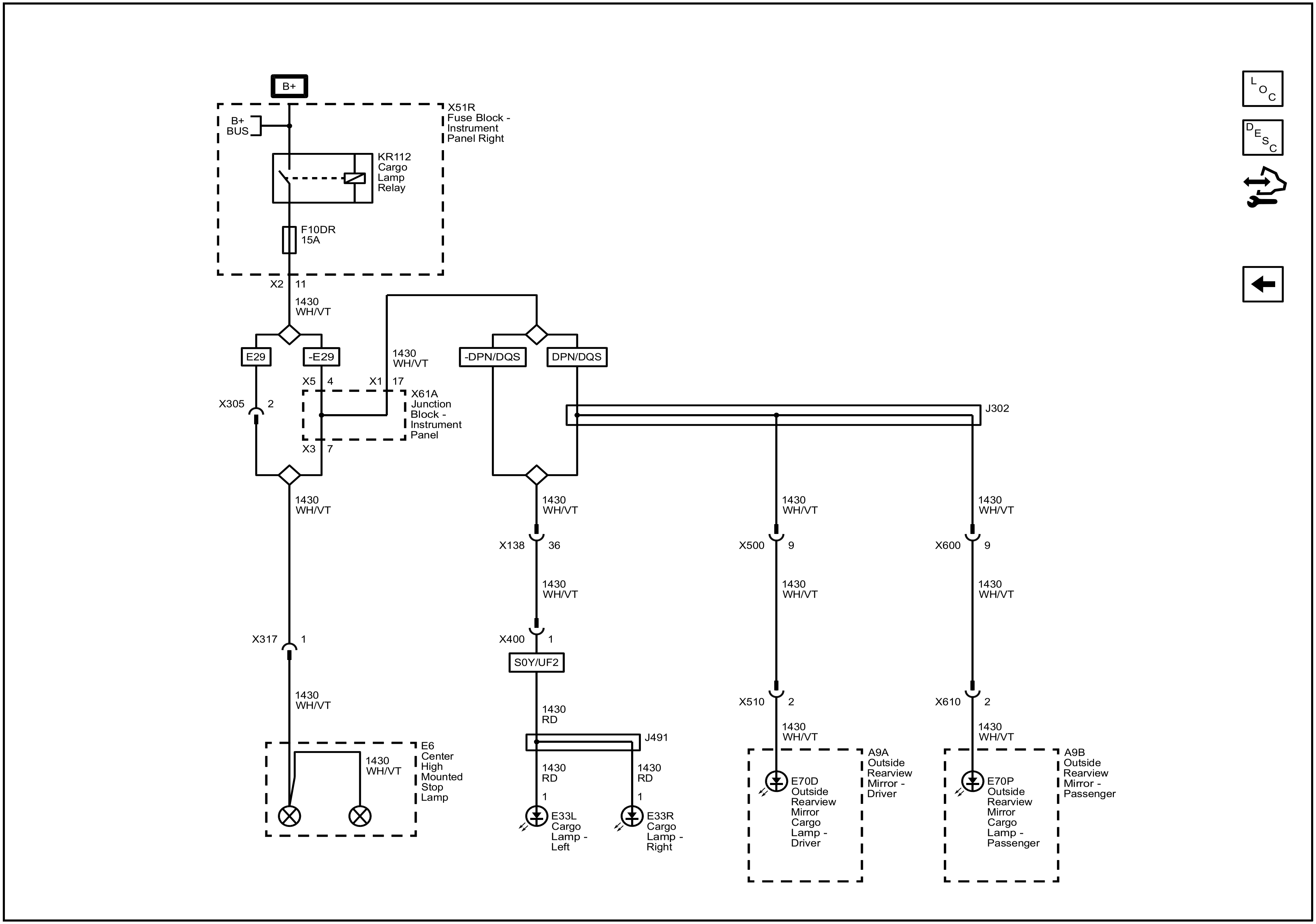
Power Distribution Schematics (2500/3500) (F1DR, F2DR, F7DR, F9DR, F20DR, F28DR, F35DR, F36DR, F43DR and F46DR Fuses (2500/3500))


B+
B+ Bus
X51R Fuse Block - Instrument Panel Right
30
KR76B Retained Accessory Power Relay 2
87
F2DR 15A
F1DR 15A
F43DR 40A
F36DR 30A
F46DR 15A
F28DR 10A
F7DR 20A
F35DR 25A
F9DR 10A
F20DR 30A
X2 10
X1 18
22
37
34
X2 29
8
35
1
X3-3 (Not Used)
X3 1
243 VT/YE
143 VT/YE
UQA
KI4/KI5
U42
CF5/TRW
542 RD/VT
1540 RD/GN
3140 RD/GN
AZ3/B3F
AE7/AZ3/B3F
D07
D07
X275 21
X275 2
X217 1
3740 RD/YE
5140 RD/GN
2240 RD/BN
2540 RD/BU
4140 RD/GY
X305 5
X319 1
243 VT/YE
143 VT/YE
KI4
KI5
X241 6
X300 1
2
X314 1
9
4140 RD/GY
542 RD/VT
1540 RD/GN
3140 RD/GN
143 VT/YE
243 VT/YE
243 VT/YE
143 VT/YE
CF5
TRW
A
A
A
A
1
X1 4
X5 3
X1 4
2
6
X2 10
8
C1
X80E Accessory Power Receptacle - Center Seat
X80D Accessory Power Receptacle - Center Console Compartment
X80L Accessory Power Receptacle - Center Console Rear
X80D Accessory Power Receptacle - Center Console Compartment
M8 Blower Motor
T3 Audio Amplifier
K9 Body Control Module
T1 Accessory DC/AC Power Inverter Module
P22A Video Display - 2nd Row
M69 Sunroof Motor
KR58 Roof Beacon Relay
4693142

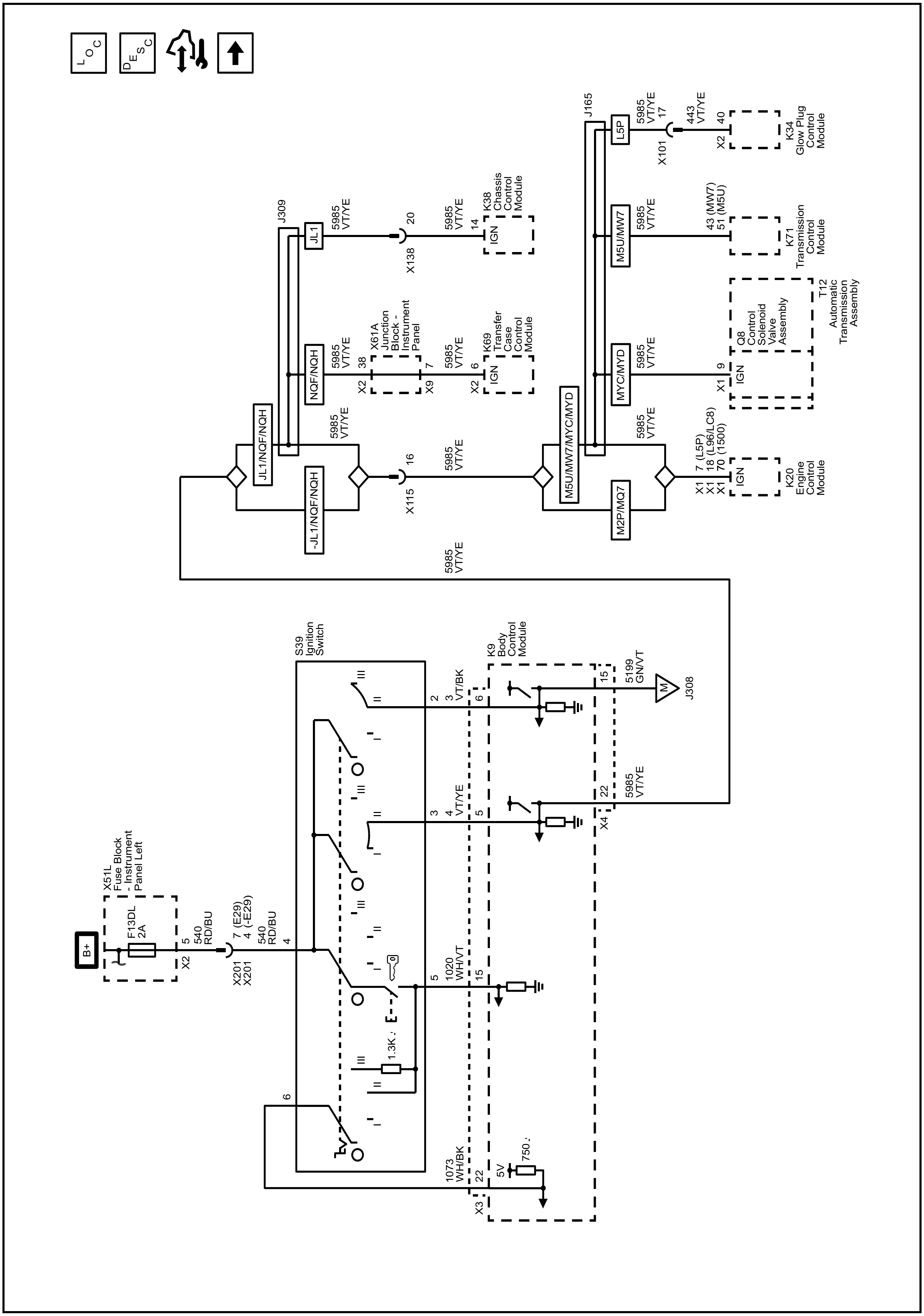
Power Distribution Schematics (2500/3500) (F15DR, F18DR, F27DR and F44DR Fuses (2500/3500))


4693144
LOC
DESC
B+
B+ Bus
X51R Fuse Block - Instrument Panel Right
F15DR 2A
F18DR 20A
F27DR 15A
F44DR 15A
X2 16
X1 27
X2-25 (Not Used)
17
42
43
3040 RD/YE
X201 25 (-E29)
X201 2 (E29)
X85 Steering Wheel Air Bag Coil
X1 1
X2 10
UK3
-UK3
J295
3040 RD/YE
S70R Steering Wheel Controls Switch - Right
S70L Steering Wheel Controls Switch - Left
IOB
IO5/IO6
340 RD/VT
J251
J250
X2 20
X1 11
X3 8
A11 Radio
A33 Media Disc Player
X1 10 (TG5)
X1 1 (U42)
K74 Human Machine Interface Control Module
X1 7
X92 USB Receptacle
X1 6
D07
U42
-D07
-D07/TG5
X300
24
42
14
X314
X82 Audio/ Video Input Adapter
X83 Auxiliary Audio Input
3140 RD/GN
(UFL/UHX)- (UD5/UD7)
(UFL/UHX)+ (UD5/UD7)
(UD5/UD7)- (UFL/UHX)
J305
X61A Junction Block - Instrument Panel
X2 5
X3 3
B174W Frontview Camera - Windshield
3
X1 1
K182 Parking Assist Control Module

Power Distribution Schematics (2500/3500) (F10DR Fuse (2500/3500))

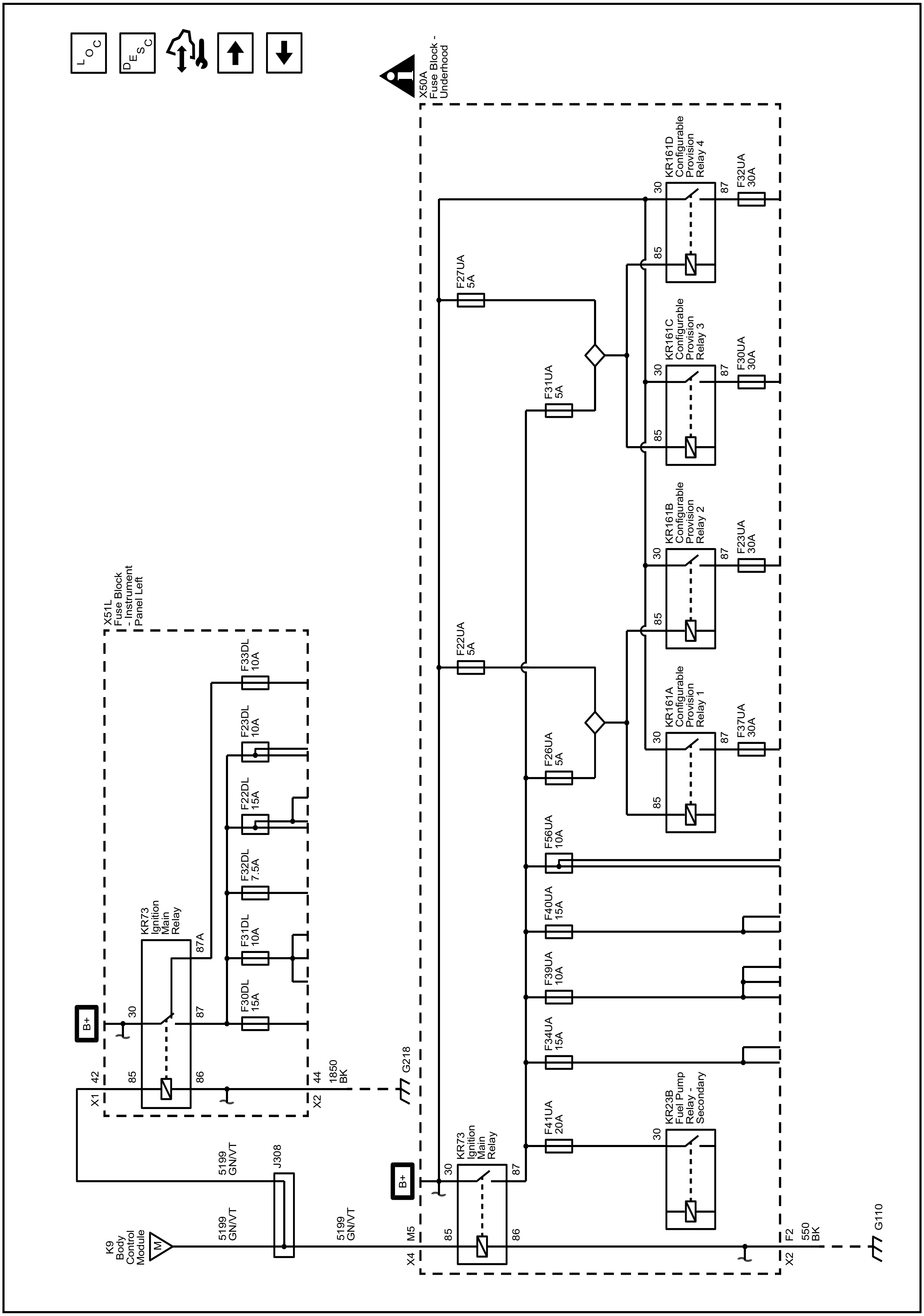

B+
B+ BUS
X51R Fuse Block - Instrument Panel Right
KR112 Cargo Lamp Relay
F10DR 15A
X2 11
1430 WH/VT
E29
-E29
-DPN/DQS
DPN/DQS
X305 2
X5 4
X1 17
X61A Junction Block - Instrument Panel
X3 7
J302
X138 36
X500 9
X600 9
X317 1
X400 1
S0Y/UF2
1430 RD
J491
X510 2
X610 2
E6 Center High Mounted Stop Lamp
E33L Cargo Lamp - Left
E33R Cargo Lamp - Right
E70D Outside Rearview Mirror Cargo Lamp - Driver
A9A Outside Rearview Mirror - Driver
E70P Outside Rearview Mirror Cargo Lamp - Passenger
A9B Outside Rearview Mirror - Passenger
4693148

Power Moding Schematics (Ignition Switch and Ignition Power)

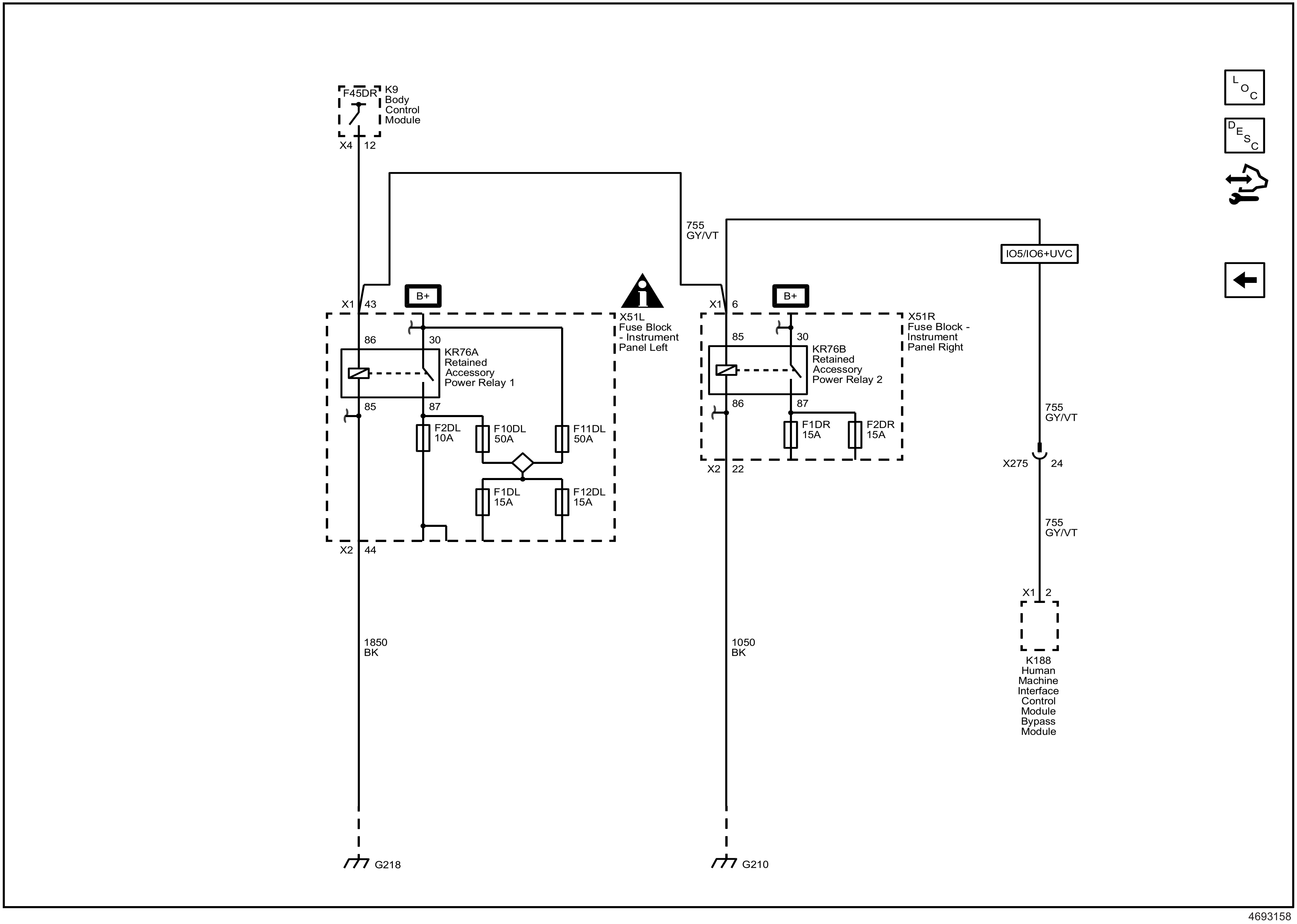


4693151
B+
X51L
Fuse Block
- Instrument
Panel Left
F13DL
2A
X2
5
540
RD/BU
X201
X201
7 (E29)
4 (-E29)
540
RD/BU
4
S39
Ignition
Switch
I
II
III
1.3K
6
5
1020
WH/VT
15
2
3
VT/BK
6
3
4
VT/YE
5
1073
WH/BK
22
X3
5V
750
K9
Body
Control
Module
15
5199
GN/VT
M
J308
22
5985
VT/YE
X4
5985
VT/YE
JL1/NQF/NQH
-JL1/NQF/NQH
J309
JL1
NQF/NQH
5985
VT/YE
X115
16
X138
20
14
IGN
K38
Chassis
Control
Module
X2
38
X61A
Junction
Block -
Instrument
Panel
X9
7
X2
6
K69
Transfer
Case
Control
Module
M5U/MW7/MYC/MYD
M2P/MQ7
MYC/MYD
M5U/MW7
L5P
J165
X1
7 (L5P)
18 (L96/LC8)
70 (1500)
K20
Engine
Control
Module
X1
9
Q8
Control
Solenoid
Valve
Assembly
T12
Automatic
Transmission
Assembly
43 (MW7)
51 (M5U)
K71
Transmission
Control
Module
X101
17
443
VT/YE
X2
40
K34
Glow Plug
Control
Module

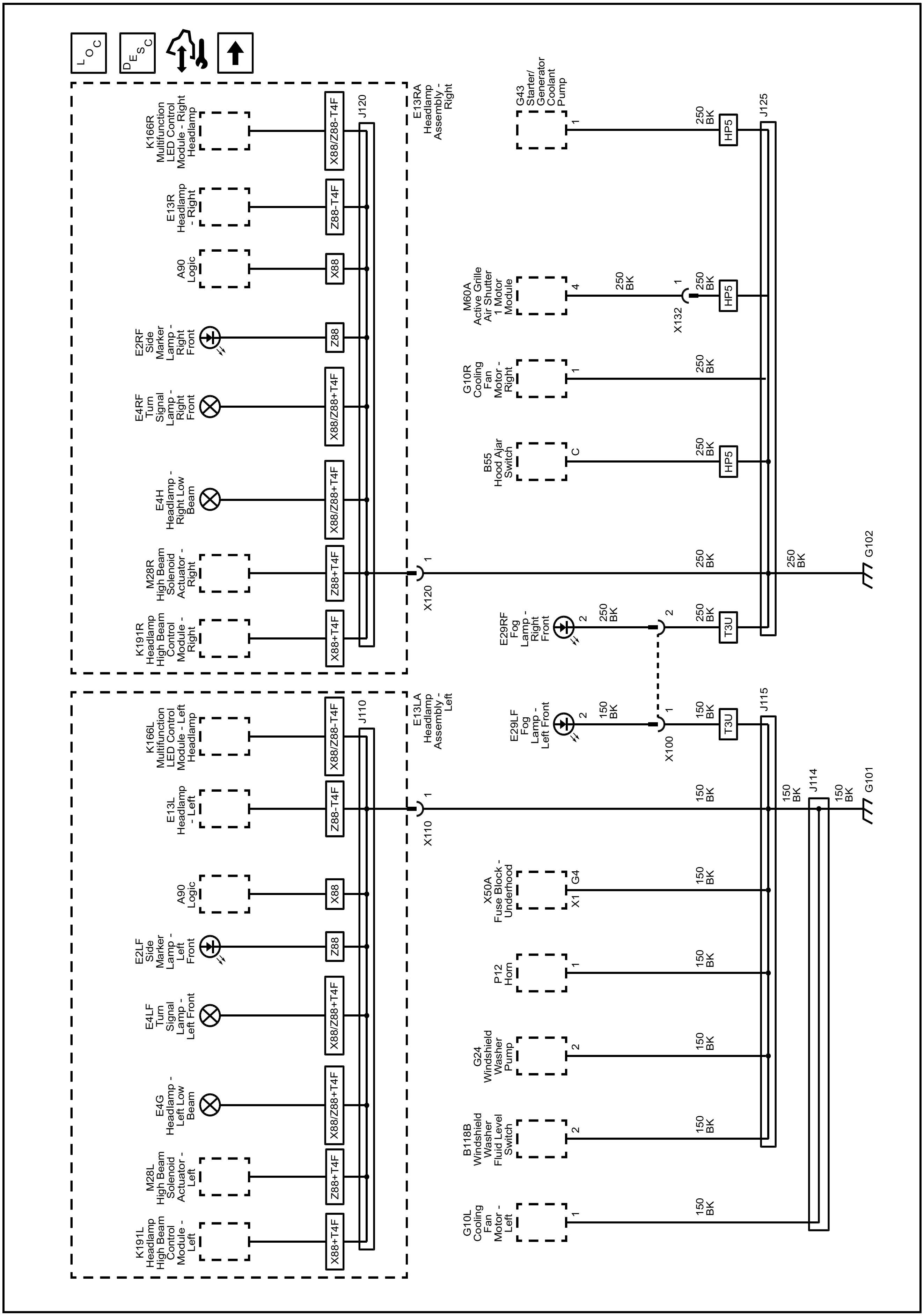
Power Moding Schematics (Ignition Main Relays)


4693154
LOC
DESC
X50A Fuse Block - Underhood
KR161D Configurable Provision Relay 4
KR161C Configurable Provision Relay 3
KR161B Configurable Provision Relay 2
KR161A Configurable Provision Relay 1
30
85
87
F32UA 30A
F30UA 30A
F23UA 30A
F37UA 30A
F27UA 5A
F31UA 5A
F22UA 5A
F26UA 5A
F56UA 10A
F40UA 15A
F39UA 10A
F34UA 15A
F41UA 20A
KR23B Fuel Pump Relay - Secondary
KR73 Ignition Main Relay
B+
86
X4
M5
F2
X2
550 BK
G110
X51L Fuse Block - Instrument Panel Left
F33DL 10A
F23DL 10A
F22DL 15A
F32DL 7.5A
F31DL 10A
F30DL 15A
87A
X1
42
44
1850 BK
G218
5199 GN/VT
J308
K9 Body Control Module
M

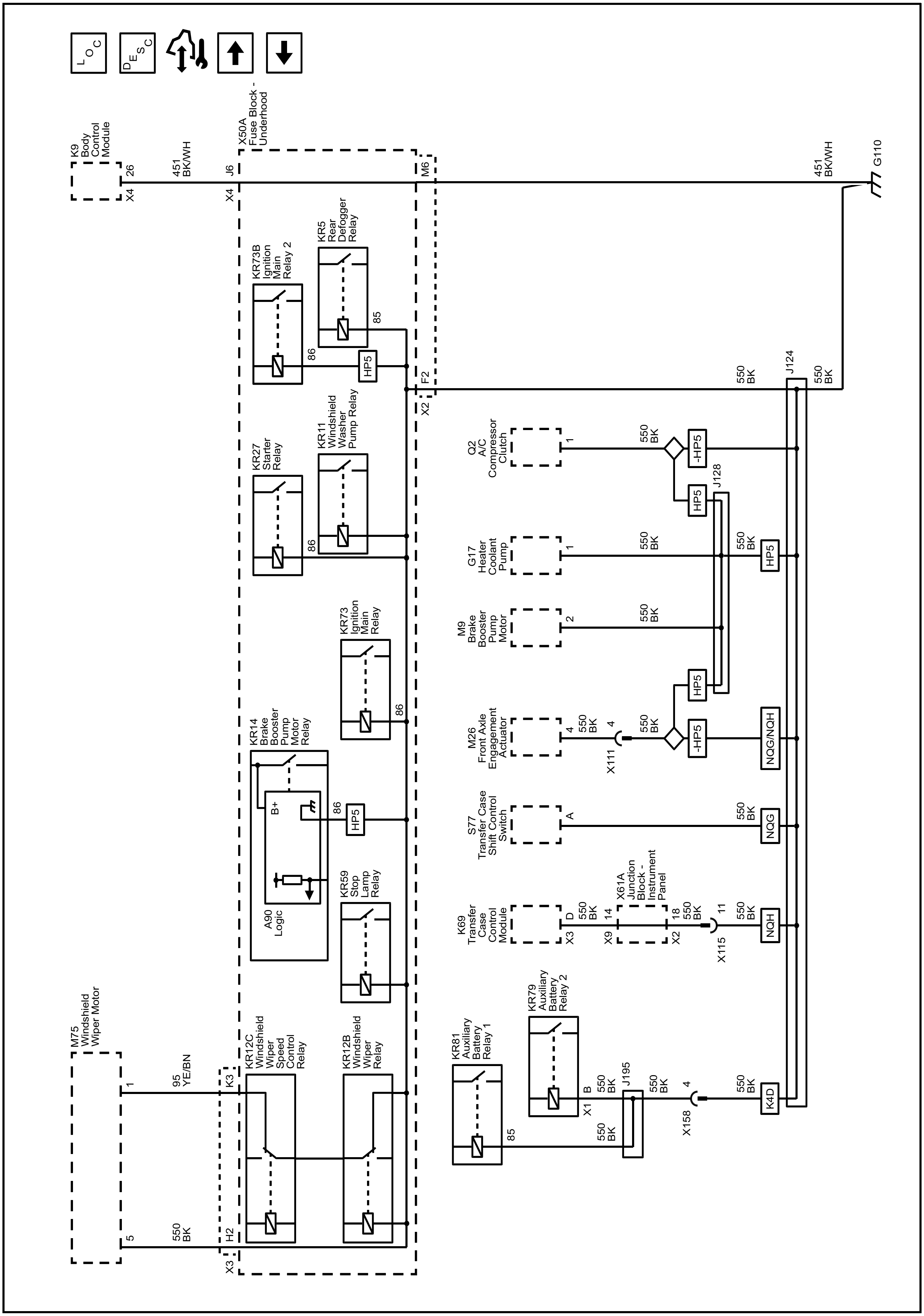
Power Moding Schematics (Retained Accessory Power Relays)


F45DR
K9
Body
Control
Module
X4 12
755
GY/VT
X1 43
B+
86
30
KR76A
Retained
Accessory
Power Relay 1
85
87
F2DL
10A
F10DL
50A
F11DL
50A
F1DL
15A
F12DL
15A
X51L
Fuse Block
- Instrument
Panel Left
X2 44
1850
BK
G218
X1 6
B+
85
30
KR76B
Retained
Accessory
Power Relay 2
86
87
F1DR
15A
F2DR
15A
X51R
Fuse Block -
Instrument
Panel Right
X2 22
1050
BK
G210
IO5/IO6+UVC
755
GY/VT
X275 24
755
GY/VT
X1 2
K188
Human
Machine
Interface
Control
Module
Bypass
Module
L O C
D E S C
4693158

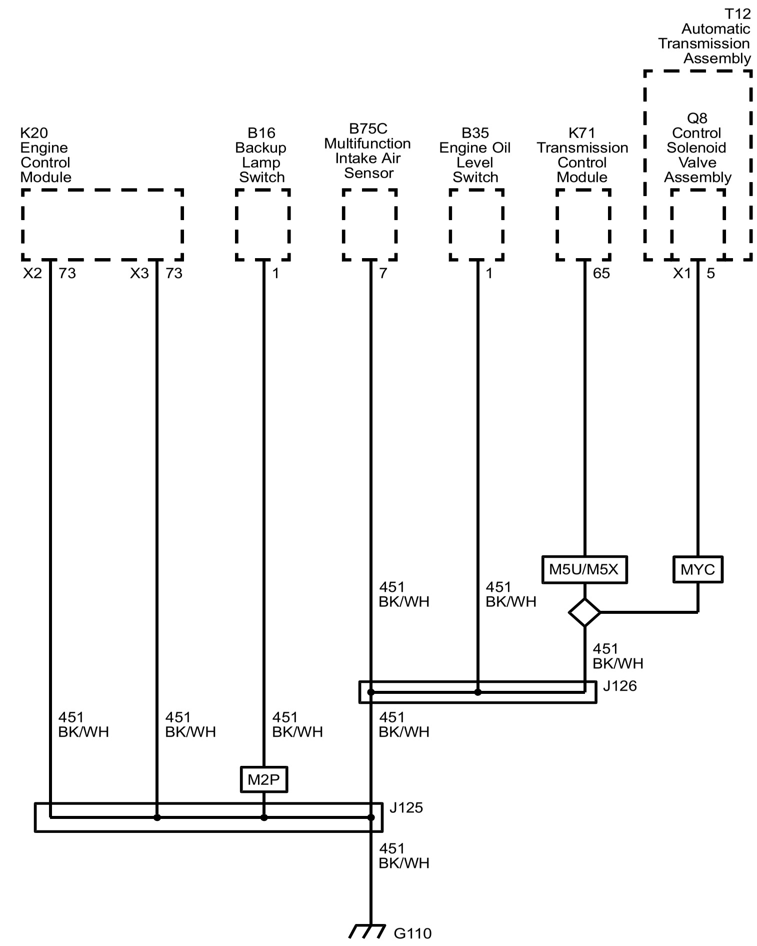
Ground Distribution Schematics (1500) (G101 and G102 (1500))


4693161
LOC
DESC
K166R Multifunction LED Control Module - Right Headlamp
E13R Headlamp - Right
A90 Logic
E2RF Side Marker Lamp - Right Front
E4RF Turn Signal Lamp - Right Front
E4H Headlamp - Right Low Beam
M28R High Beam Solenoid Actuator - Right
K191R Headlamp High Beam Control Module - Right
X88/Z88-T4F
Z88-T4F
X88
Z88
X88/Z88+T4F
Z88+T4F
X88+T4F
J120
E13RA Headlamp Assembly - Right
X120
K166L Multifunction LED Control Module - Left Headlamp
E13L Headlamp - Left
A90 Logic
E2LF Side Marker Lamp - Left Front
E4LF Turn Signal Lamp - Left Front
E4G Headlamp - Left Low Beam
M28L High Beam Solenoid Actuator - Left
K191L Headlamp High Beam Control Module - Left
J110
E13LA Headlamp Assembly - Left
X110
G43 Starter/ Generator Coolant Pump
M60A Active Grille Air Shutter 1 Motor Module
X132
G10R Cooling Fan Motor - Right
B55 Hood Ajar Switch
E29RF Fog Lamp - Right Front
E29LF Fog Lamp - Left Front
X100
X50A Fuse Block - Underhood
X1 G4
P12 Horn
G24 Windshield Washer Pump
B118B Windshield Washer Fluid Level Switch
G10L Cooling Fan Motor - Left
1
2
4
C
250 BK
150 BK
HP5
T3U
J125
J115
J114
G102
G101

Ground Distribution Schematics (1500) (G110 1 of 2 (1500))

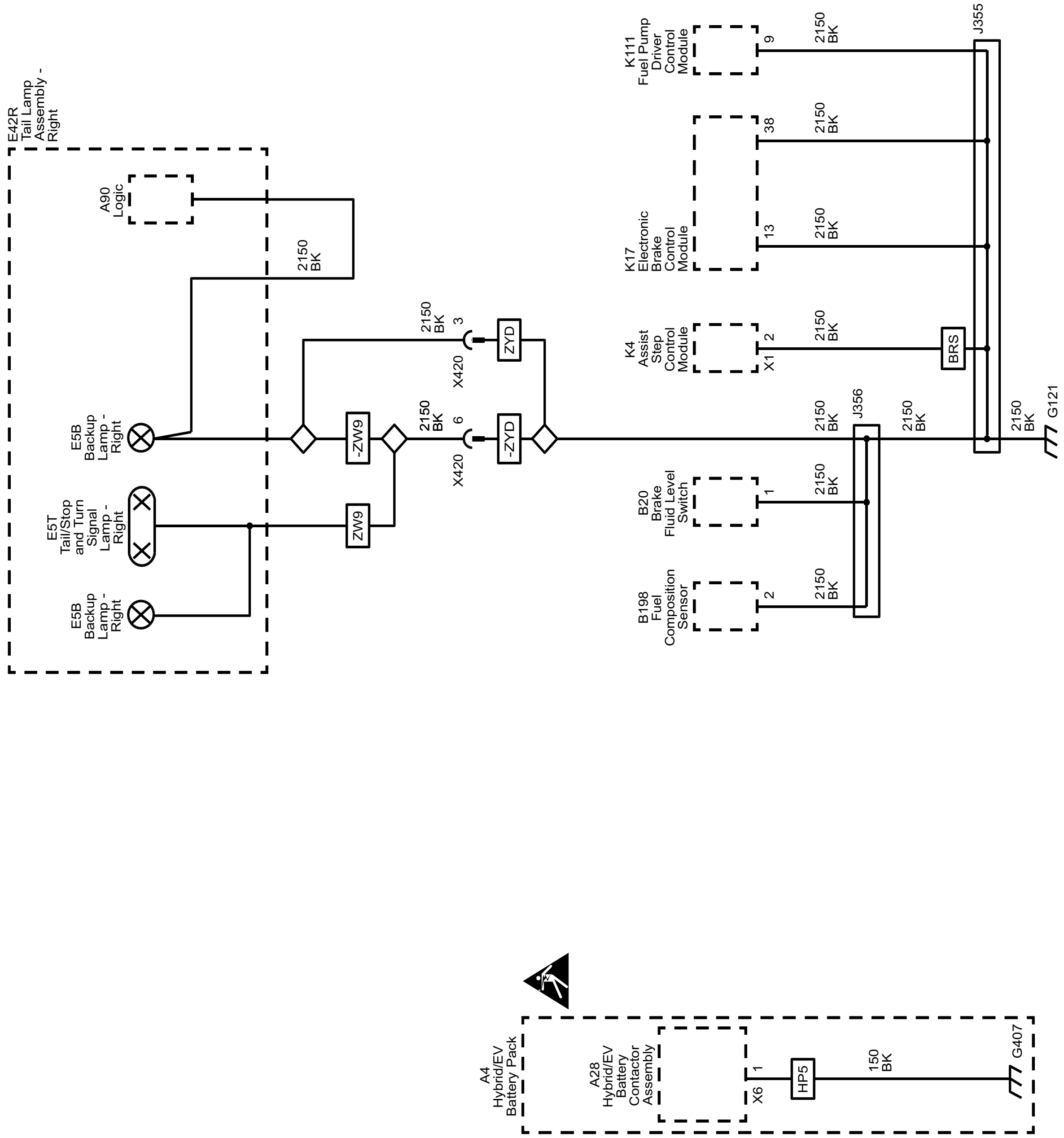

4693168
K9 Body Control Module
X4 26
451 BK/WH
X50A Fuse Block - Underhood
X4 J6
M6
F2
X2
G110
451 BK/WH
KR73B Ignition Main Relay 2
86
KR5 Rear Defogger Relay
85
HP5
KR27 Starter Relay
86
KR11 Windshield Washer Pump Relay
KR73 Ignition Main Relay
86
KR14 Brake Booster Pump Motor Relay
B+
86
HP5
A90 Logic
KR59 Stop Lamp Relay
M75 Windshield Wiper Motor
1
95 YE/BN
5
550 BK
X3 K3
X3 H2
KR12C Windshield Wiper Speed Control Relay
KR12B Windshield Wiper Relay
550 BK
J124
550 BK
Q2 A/C Compressor Clutch
1
550 BK
-HP5
HP5
J128
G17 Heater Coolant Pump
1
550 BK
550 BK
HP5
M9 Brake Booster Pump Motor
2
550 BK
HP5
M26 Front Axle Engagement Actuator
4
550 BK
4
X111
550 BK
-HP5
NQG/NQH
S77 Transfer Case Shift Control Switch
A
550 BK
NQG
K69 Transfer Case Control Module
X3 D
550 BK
X61A Junction Block - Instrument Panel
X9 14
X2 18
550 BK
11
X115
550 BK
NQH
KR79 Auxiliary Battery Relay 2
KR81 Auxiliary Battery Relay 1
85
X1 B
550 BK
J195
550 BK
550 BK
4
X158
550 BK
K4D

Ground Distribution Schematics (1500) (G110 2 of 2 (1500))

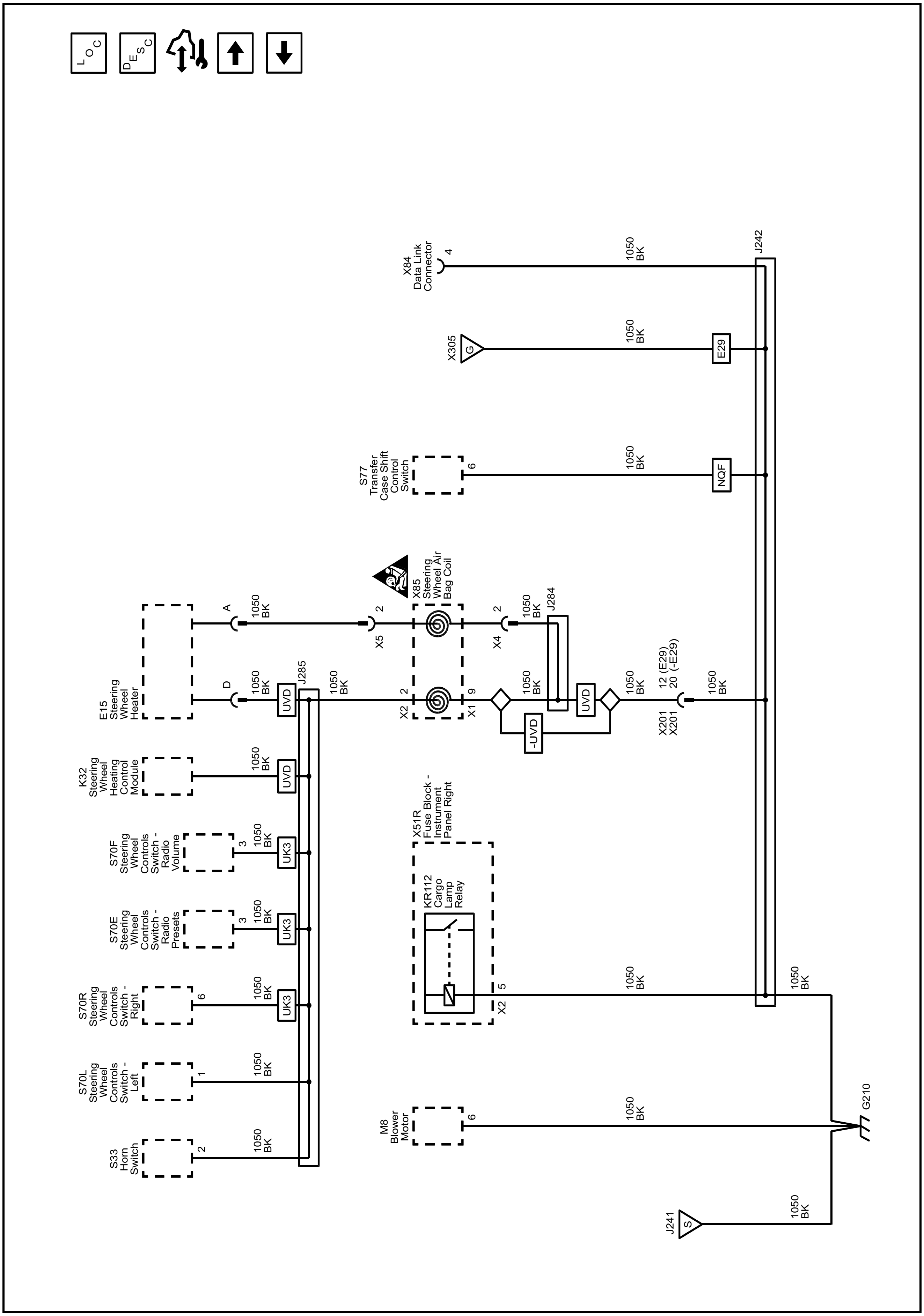

T12
Automatic
Transmission
Assembly
K20
Engine
Control
Module
B16
Backup
Lamp
Switch
B75C
Multifunction
Intake Air
Sensor
B35
Engine Oil
Level
Switch
K71
Transmission
Control
Module
Q8
Control
Solenoid
Valve
Assembly
X2 73
X3 73
1
7
1
65
X1 5
M5U/M5X
MYC
451
BK/WH
J126
M2P
J125
G110

4693172

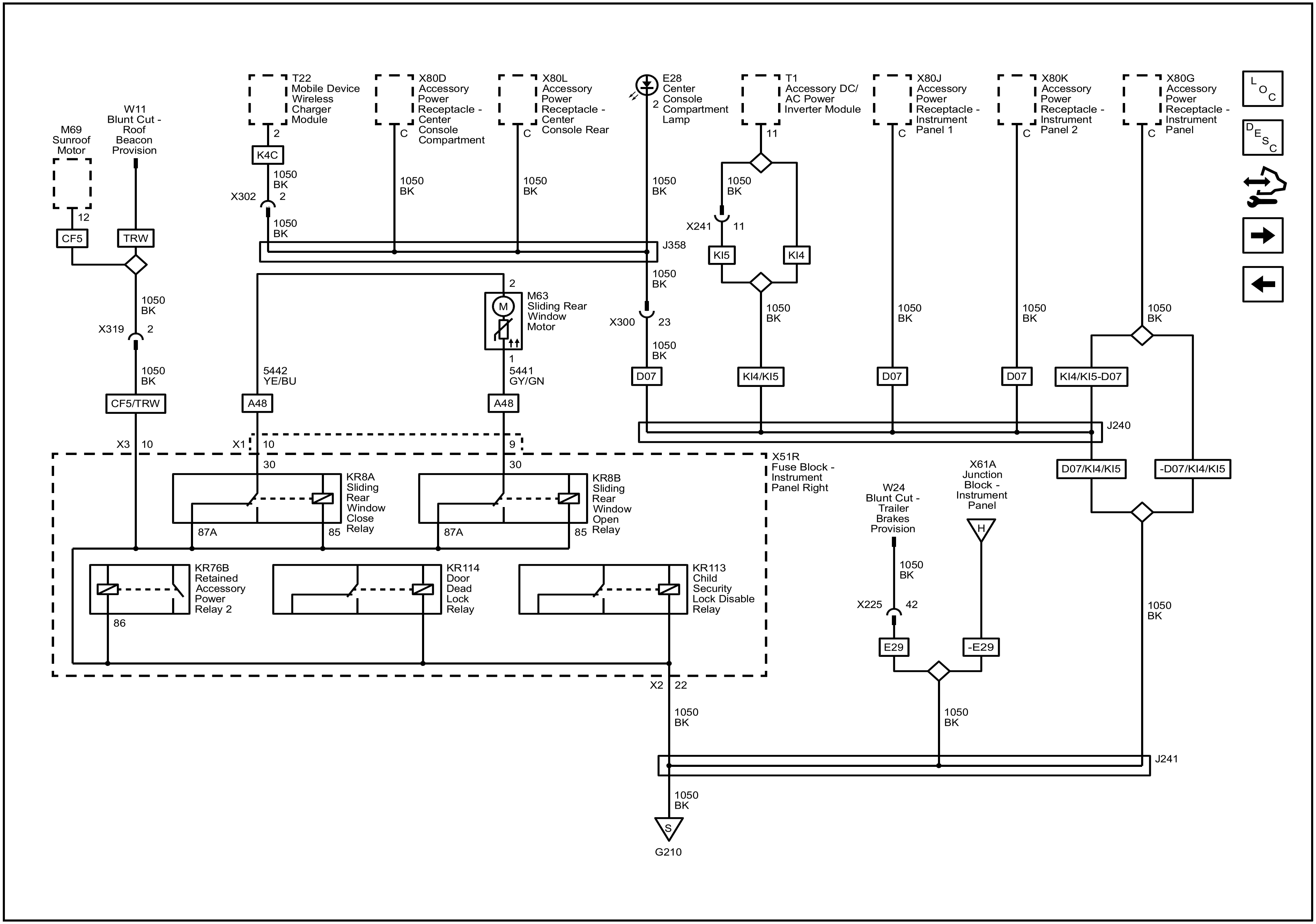
Ground Distribution Schematics (1500) (G121 and G407 (1500))


4693174
E42R Tail Lamp Assembly - Right
A90 Logic
2150 BK
E5B Backup Lamp - Right
E5T Tail/Stop and Turn Signal Lamp - Right
E5B Backup Lamp - Right
ZW9
-ZW9
X420
3
2150 BK
ZYD
X420
6
2150 BK
-ZYD
K111 Fuel Pump Driver Control Module
9
2150 BK
J355
K17 Electronic Brake Control Module
38
2150 BK
13
2150 BK
K4 Assist Step Control Module
X1 2
2150 BK
BRS
J356
2150 BK
2150 BK
2150 BK
G121
B20 Brake Fluid Level Switch
1
2150 BK
B198 Fuel Composition Sensor
2
2150 BK
A4 Hybrid/EV Battery Pack
A28 Hybrid/EV Battery Contactor Assembly
X6 1
HP5
150 BK
G407

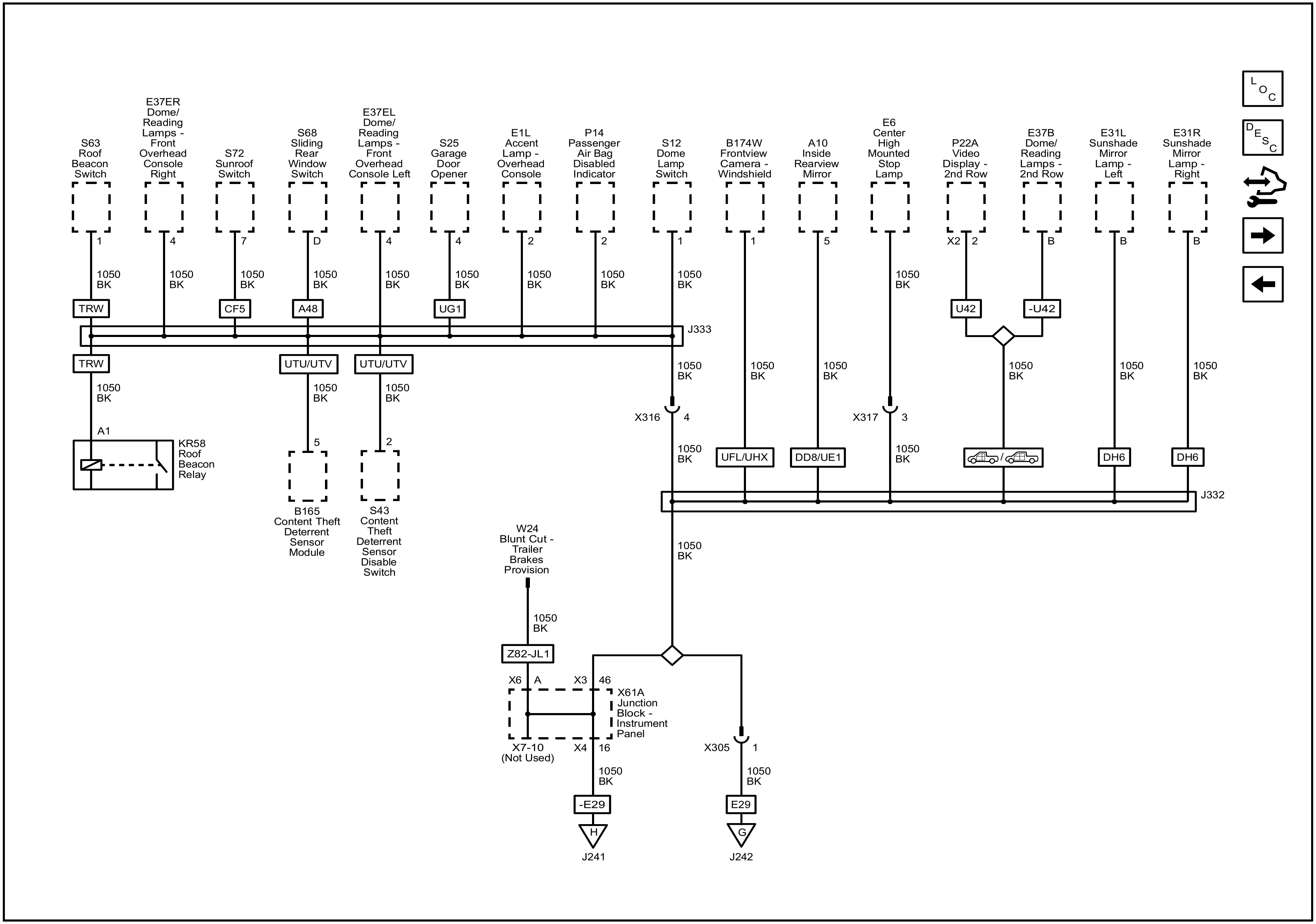
Ground Distribution Schematics (1500) (G210 1 of 3 (1500))


4693176
LOC
DESC
X84 Data Link Connector
4
1050 BK
J242
X305
G
E29
S77 Transfer Case Shift Control Switch
6
NQF
X85 Steering Wheel Air Bag Coil
2
X5
X4
J284
9
X1
X2
12 (E29)
20 (-E29)
X201
X201
UVD
-UVD
E15 Steering Wheel Heater
A
D
J285
K32 Steering Wheel Heating Control Module
S70F Steering Wheel Controls Switch - Radio Volume
3
UK3
S70E Steering Wheel Controls Switch - Radio Presets
S70R Steering Wheel Controls Switch - Right
S70L Steering Wheel Controls Switch - Left
1
S33 Horn Switch
X51R Fuse Block - Instrument Panel Right
KR112 Cargo Lamp Relay
5
M8 Blower Motor
G210
J241
S

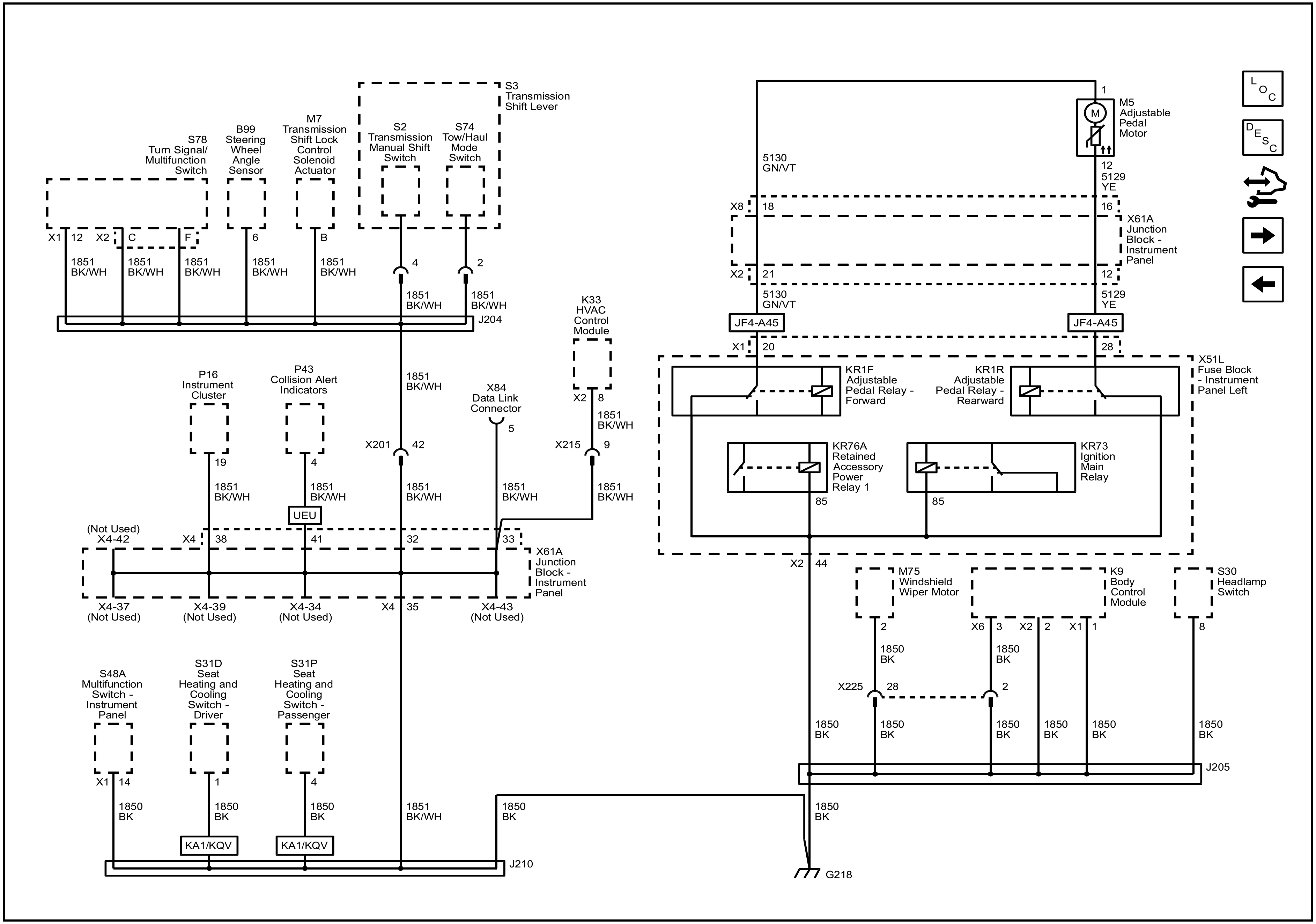
Ground Distribution Schematics (1500) (G210 2 of 3 (1500))


M69 Sunroof Motor
12
CF5
W11 Blunt Cut - Roof Beacon Provision
TRW
1050 BK
X319 2
1050 BK
CF5/TRW
X3 10
T22 Mobile Device Wireless Charger Module
2
K4C
1050 BK
X302 2
1050 BK
X80D Accessory Power Receptacle - Center Console Compartment
C
1050 BK
X80L Accessory Power Receptacle - Center Console Rear
C
1050 BK
J358
E28 Center Console Compartment Lamp
2
1050 BK
1050 BK
X300 23
1050 BK
D07
M63 Sliding Rear Window Motor
M
2
1
5441 GY/GN
A48
5442 YE/BU
A48
X1 10
9
30
30
KR8A Sliding Rear Window Close Relay
87A
85
KR8B Sliding Rear Window Open Relay
87A
85
KR76B Retained Accessory Power Relay 2
86
KR114 Door Dead Lock Relay
KR113 Child Security Lock Disable Relay
X51R Fuse Block - Instrument Panel Right
X2 22
1050 BK
T1 Accessory DC/ AC Power Inverter Module
11
1050 BK
X241 11
KI5
KI4
1050 BK
KI4/KI5
X80J Accessory Power Receptacle - Instrument Panel 1
C
1050 BK
D07
X80K Accessory Power Receptacle - Instrument Panel 2
C
1050 BK
D07
X80G Accessory Power Receptacle - Instrument Panel
C
1050 BK
KI4/KI5-D07
J240
D07/KI4/KI5
-D07/KI4/KI5
1050 BK
W24 Blunt Cut - Trailer Brakes Provision
1050 BK
X225 42
E29
X61A Junction Block - Instrument Panel
H
-E29
1050 BK
J241
1050 BK
S
G210
L O C
D E S C
4693179

Ground Distribution Schematics (1500) (G210 3 of 3 (1500))

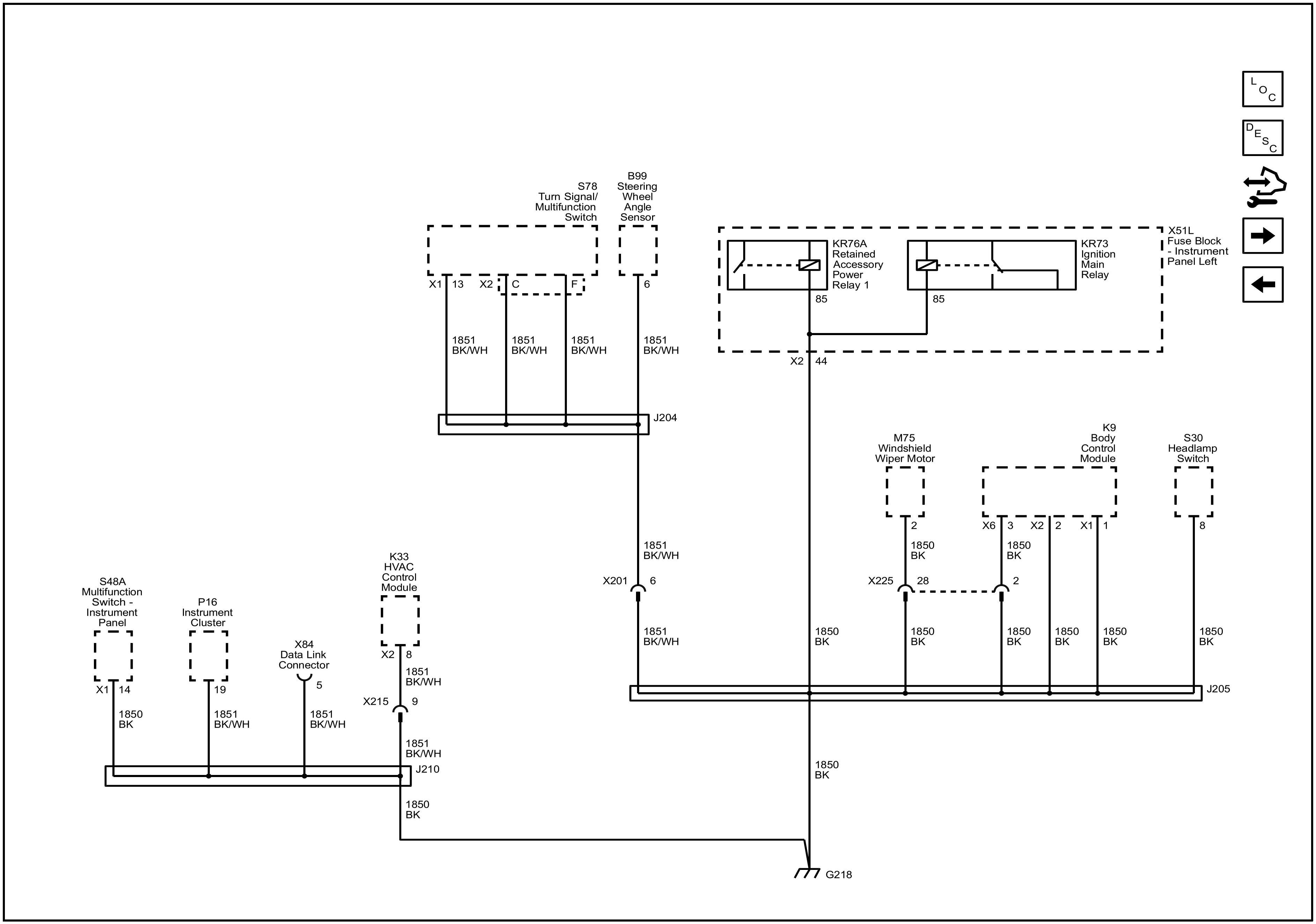

S63
Roof
Beacon
Switch
E37ER
Dome/
Reading
Lamps -
Front
Overhead
Console
Right
S72
Sunroof
Switch
S68
Sliding
Rear
Window
Switch
E37EL
Dome/
Reading
Lamps -
Front
Overhead
Console Left
S25
Garage
Door
Opener
E1L
Accent
Lamp -
Overhead
Console
P14
Passenger
Air Bag
Disabled
Indicator
S12
Dome
Lamp
Switch
B174W
Frontview
Camera -
Windshield
A10
Inside
Rearview
Mirror
E6
Center
High
Mounted
Stop
Lamp
P22A
Video
Display -
2nd Row
E37B
Dome/
Reading
Lamps -
2nd Row
E31L
Sunshade
Mirror
Lamp -
Left
E31R
Sunshade
Mirror
Lamp -
Right
1
4
7
D
4
4
2
2
1
1
5
X2
2
B
B
B
1050
BK
TRW
CF5
A48
UG1
U42
-U42
J333
UTU/UTV
UTU/UTV
X316
4
X317
3
A1
KR58
Roof
Beacon
Relay
5
2
B165
Content Theft
Deterrent
Sensor
Module
S43
Content
Theft
Deterrent
Sensor
Disable
Switch
UFL/UHX
DD8/UE1
DH6
DH6
J332
W24
Blunt Cut -
Trailer
Brakes
Provision
Z82-JL1
X6
A
X3
46
X61A
Junction
Block -
Instrument
Panel
X7-10
(Not Used)
X4
16
X305
1
-E29
E29
H
G
J241
J242
4693181

Ground Distribution Schematics (1500) (G218 (1500 except E29))

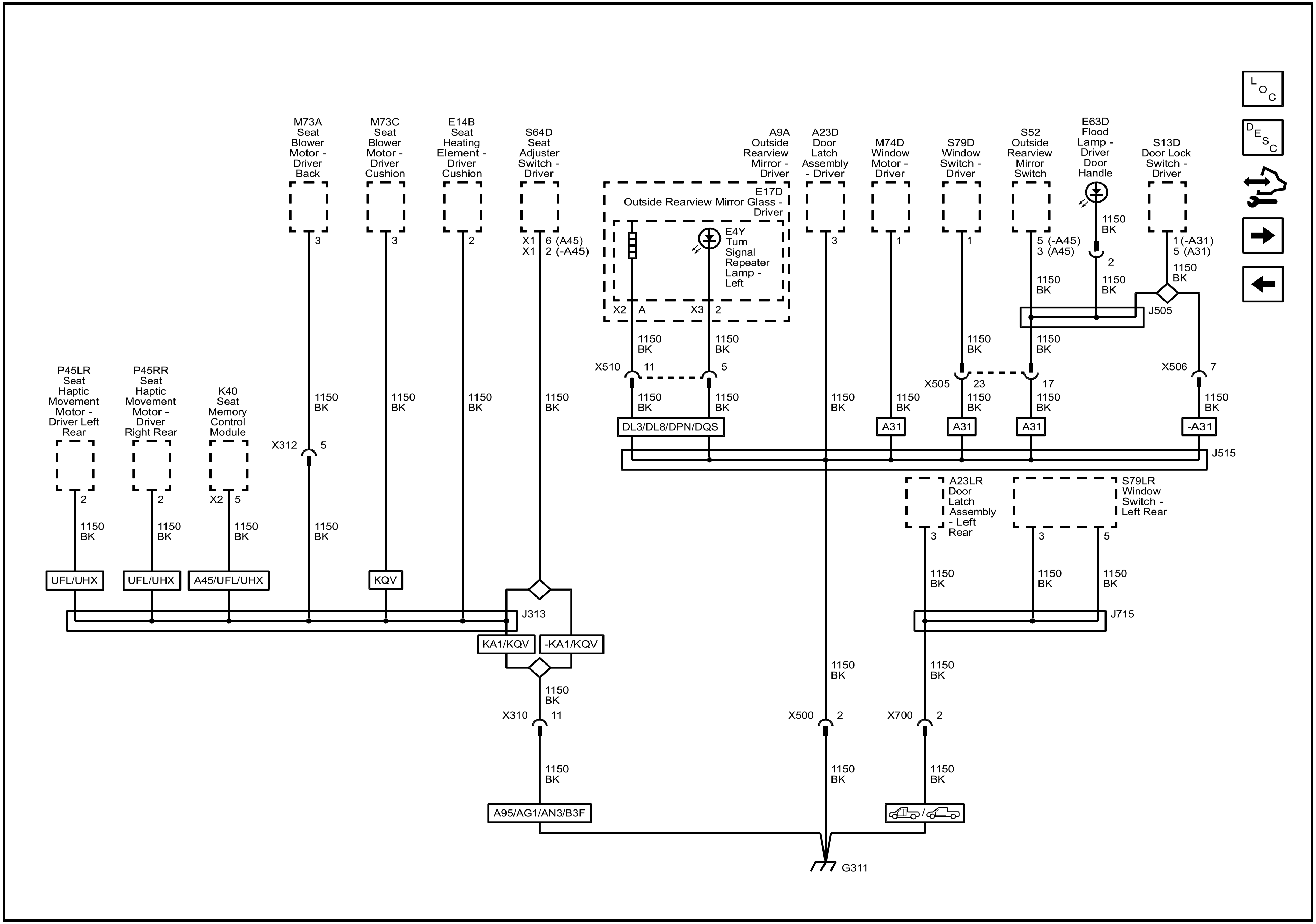

S78
Turn Signal/
Multifunction
Switch
B99
Steering
Wheel
Angle
Sensor
M7
Transmission
Shift Lock
Control
Solenoid
Actuator
S3
Transmission
Shift Lever
S2
Transmission
Manual Shift
Switch
S74
Tow/Haul
Mode
Switch
X1 12 X2 C F 6 B 4 2
1851 BK/WH
J204
K33
HVAC
Control
Module
X2 8
X215 9
P16
Instrument
Cluster
19
P43
Collision Alert
Indicators
4
UEU
X201 42
X84
Data Link
Connector
5
(Not Used)
X4-42
X4 38 41 32 33
X61A
Junction
Block -
Instrument
Panel
X4-37
(Not Used)
X4-39
(Not Used)
X4-34
(Not Used)
X4 35
X4-43
(Not Used)
S48A
Multifunction
Switch -
Instrument
Panel
X1 14
S31D
Seat
Heating and
Cooling
Switch -
Driver
1
S31P
Seat
Heating and
Cooling
Switch -
Passenger
4
1850 BK
KA1/KQV
KA1/KQV
J210
G218
M5
Adjustable
Pedal
Motor
1
M
12
5129 YE
5130 GN/VT
X8 18 16
X2 21 12
JF4-A45
JF4-A45
X1 20 28
X51L
Fuse Block
- Instrument
Panel Left
KR1F
Adjustable
Pedal Relay -
Forward
KR1R
Adjustable
Pedal Relay -
Rearward
KR76A
Retained
Accessory
Power
Relay 1
85
KR73
Ignition
Main
Relay
85
X2 44
M75
Windshield
Wiper Motor
2
K9
Body
Control
Module
X6 3 X2 2 X1 1
S30
Headlamp
Switch
8
X225 28
2
J205
L O C
D E S C

4693183

Ground Distribution Schematics (1500) (G218 (1500 with E29))

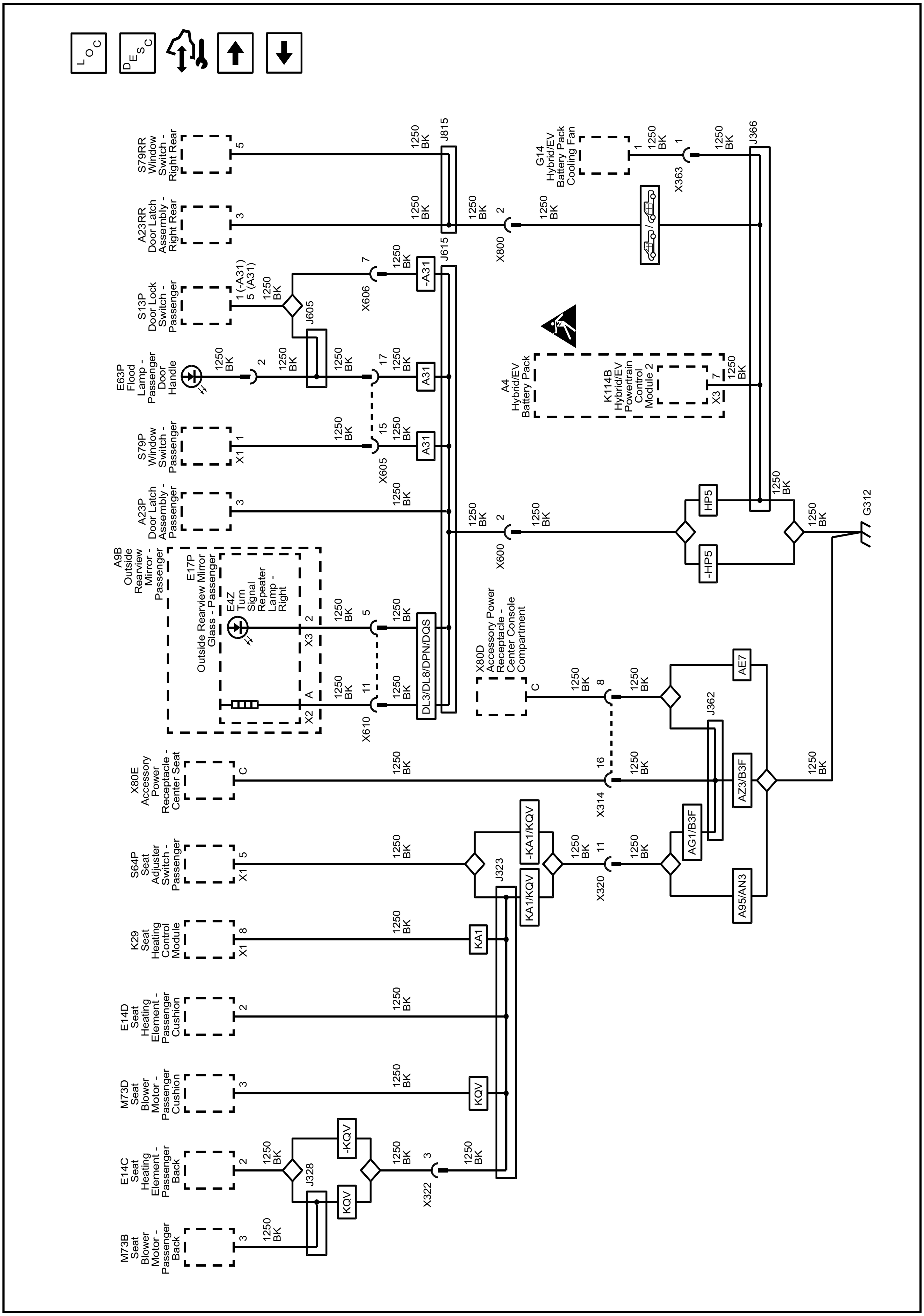

LOC
DESC
S78
Turn Signal/
Multifunction
Switch
B99
Steering
Wheel
Angle
Sensor
KR76A
Retained
Accessory
Power
Relay 1
KR73
Ignition
Main
Relay
X51L
Fuse Block
- Instrument
Panel Left
X1 13
X2 C
F
6
85
85
X2 44
1851 BK/WH
J204
M75
Windshield
Wiper Motor
K9
Body
Control
Module
S30
Headlamp
Switch
X6 3
X2 2
X1 1
2
8
1850 BK
X201 6
X225 28
2
J205
S48A
Multifunction
Switch -
Instrument
Panel
P16
Instrument
Cluster
X84
Data Link
Connector
K33
HVAC
Control
Module
X1 14
19
5
X2 8
X215 9
J210
G218
4693184

Ground Distribution Schematics (1500) (G311 (1500))

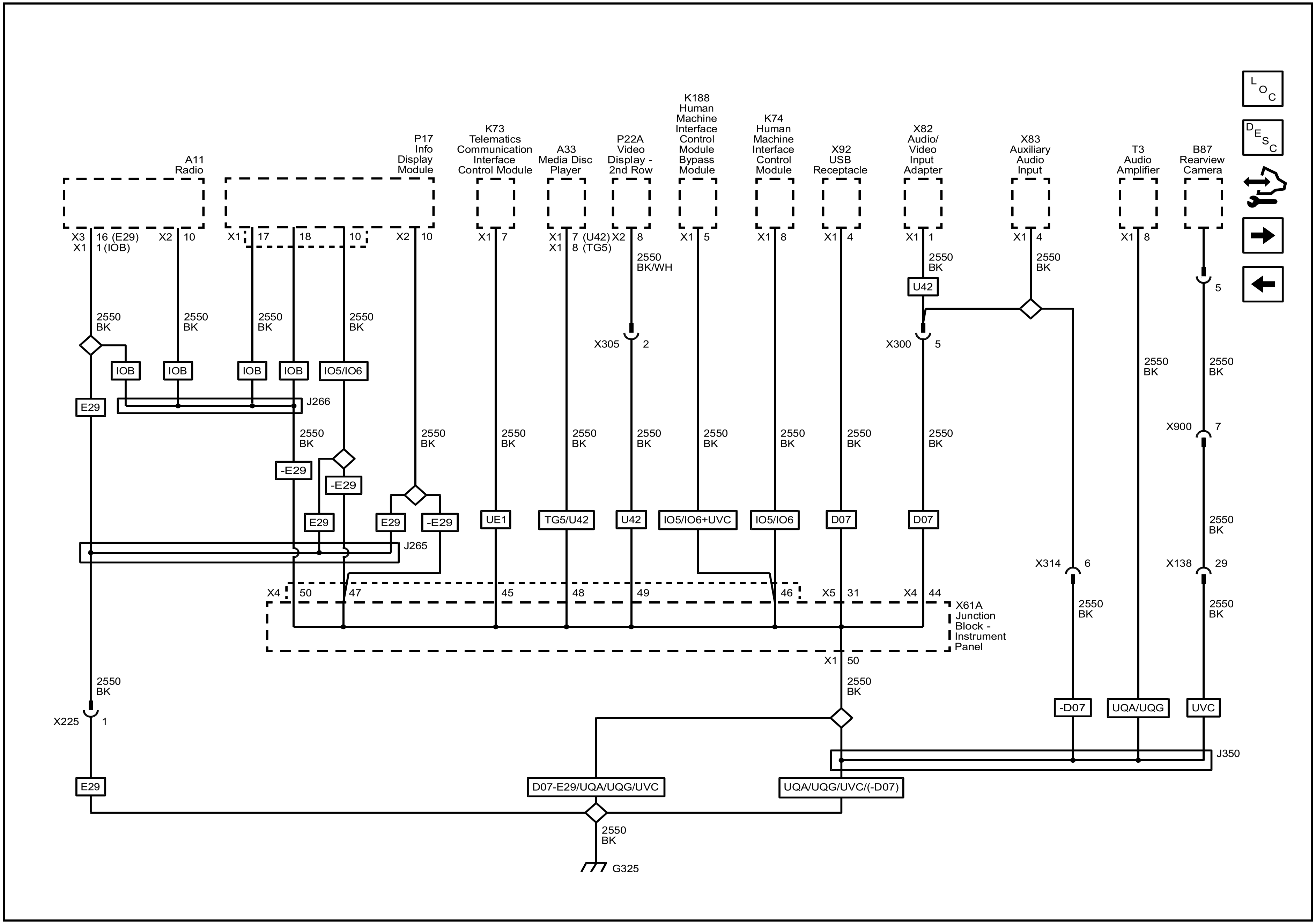


LOC
DESC
M73A Seat Blower Motor - Driver Back
M73C Seat Blower Motor - Driver Cushion
E14B Seat Heating Element - Driver Cushion
S64D Seat Adjuster Switch - Driver
A9A Outside Rearview Mirror - Driver
E17D Outside Rearview Mirror Glass - Driver
E4Y Turn Signal Repeater Lamp - Left
A23D Door Latch Assembly - Driver
M74D Window Motor - Driver
S79D Window Switch - Driver
S52 Outside Rearview Mirror Switch
E63D Flood Lamp - Driver Door Handle
S13D Door Lock Switch - Driver
P45LR Seat Haptic Movement Motor - Driver Left Rear
P45RR Seat Haptic Movement Motor - Driver Right Rear
K40 Seat Memory Control Module
A23LR Door Latch Assembly - Left Rear
S79LR Window Switch - Left Rear
X1 6 (A45)
X1 2 (-A45)
5 (-A45)
3 (A45)
1 (-A31)
5 (A31)
X2 A
X3 2
1150 BK
X312 5
X510 11
X505 23
X506 7
17
DL3/DL8/DPN/DQS
A31
-A31
J515
J505
J313
J715
UFL/UHX
A45/UFL/UHX
KQV
KA1/KQV
-KA1/KQV
X310 11
X500 2
X700 2
A95/AG1/AN3/B3F
G311
4693188

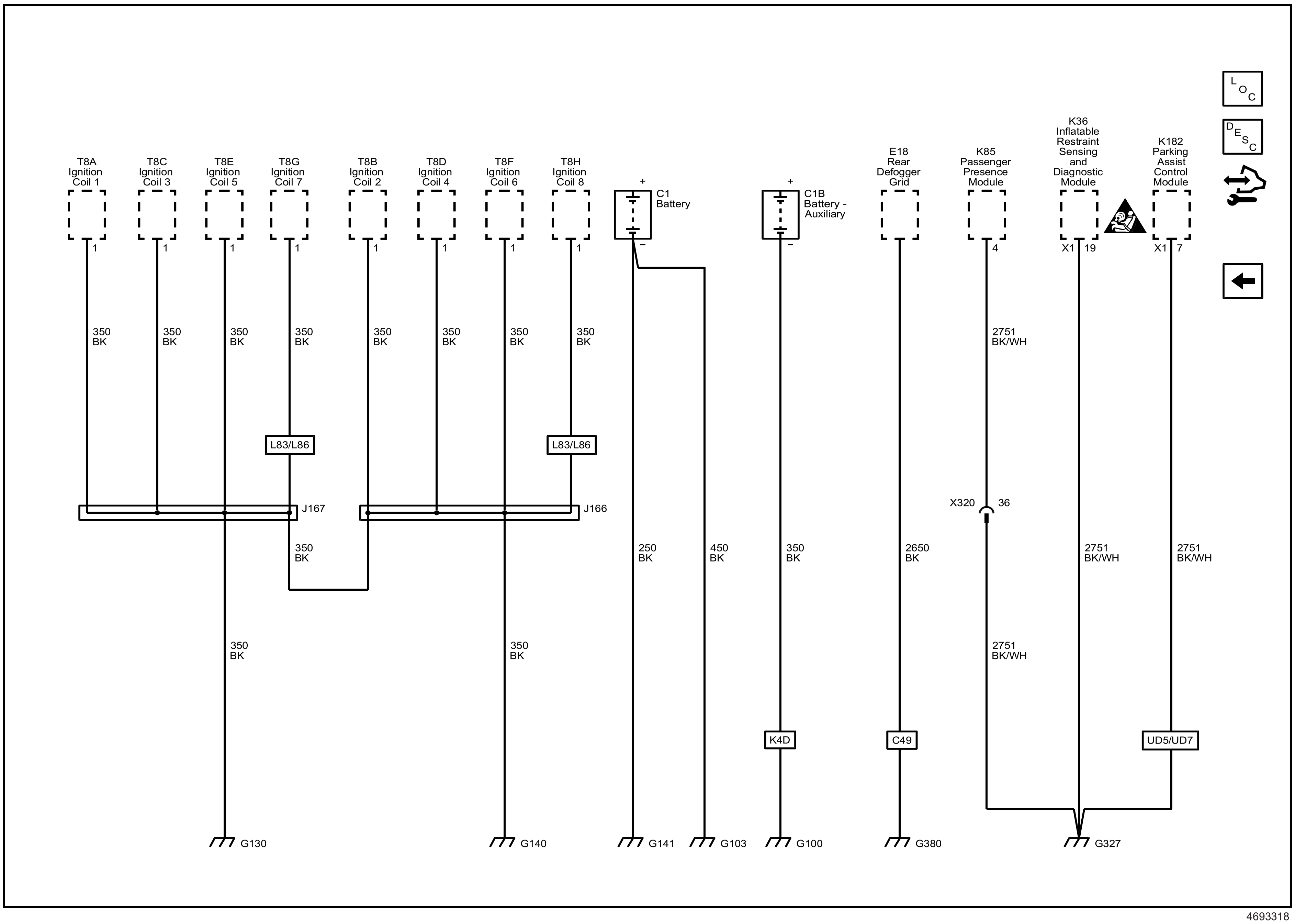
Ground Distribution Schematics (1500) (G312 (1500))


4693314
S79RR Window Switch - Right Rear
A23RR Door Latch Assembly - Right Rear
S13P Door Lock Switch - Passenger
E63P Flood Lamp - Passenger Door Handle
S79P Window Switch - Passenger
A23P Door Latch Assembly - Passenger
A9B Outside Rearview Mirror - Passenger
E17P Outside Rearview Mirror Glass - Passenger
E4Z Turn Signal Repeater Lamp - Right
X80E Accessory Power Receptacle - Center Seat
S64P Seat Adjuster Switch - Passenger
K29 Seat Heating Control Module
E14D Seat Heating Element - Passenger Cushion
M73D Seat Blower Motor - Passenger Cushion
E14C Seat Heating Element - Passenger Back
M73B Seat Blower Motor - Passenger Back
G14 Hybrid/EV Battery Pack Cooling Fan
A4 Hybrid/EV Battery Pack
K114B Hybrid/EV Powertrain Control Module 2
X80D Accessory Power Receptacle - Center Console Compartment
G312
J815
J615
J605
J366
J362
J323
J328
X800
X606
X605
X600
X610
X363
X314
X320
X322
X1
X2
X3
A31
-A31
1 (-A31)
5 (A31)
DL3/DL8/DPN/DQS
HP5
-HP5
AE7
AZ3/B3F
AG1/B3F
A95/AN3
KA1/KQV
-KA1/KQV
KA1
KQV
-KQV
1250 BK
L O C
D E S C

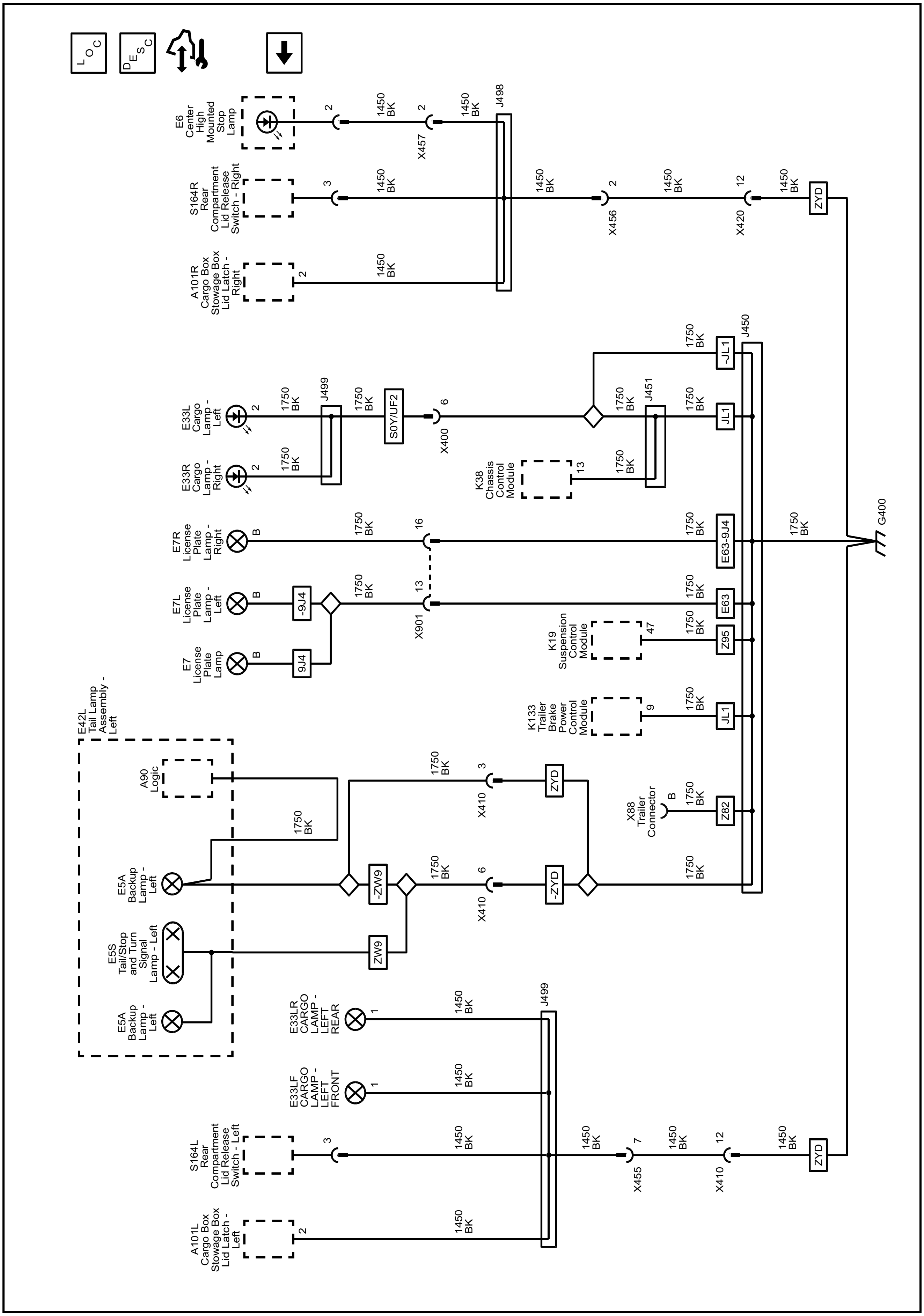
Ground Distribution Schematics (1500) (G325 (1500))


A11 Radio
X3 16 (E29)
X1 1 (IOB)
X2 10
P17 Info Display Module
X1 17
18
10
X2 10
K73 Telematics Communication Interface Control Module
X1 7
A33 Media Disc Player
X1 7 (U42)
X1 8 (TG5)
P22A Video Display - 2nd Row
X2 8
2550 BK/WH
X305 2
K188 Human Machine Interface Control Module Bypass Module
X1 5
K74 Human Machine Interface Control Module
X1 8
X92 USB Receptacle
X1 4
X82 Audio/ Video Input Adapter
X1 1
U42
X300 5
X83 Auxiliary Audio Input
X1 4
T3 Audio Amplifier
X1 8
B87 Rearview Camera
5
X900 7
X138 29
X314 6
2550 BK
IOB
IO5/IO6
J266
E29
-E29
J265
UE1
TG5/U42
U42
IO5/IO6+UVC
IO5/IO6
D07
X4 50
47
45
48
49
46
X5 31
X4 44
X61A Junction Block - Instrument Panel
X1 50
X225 1
-D07
UQA/UQG
UVC
J350
D07-E29/UQA/UQG/UVC
UQA/UQG/UVC/(-D07)
G325
L O C
D E S C
4693317

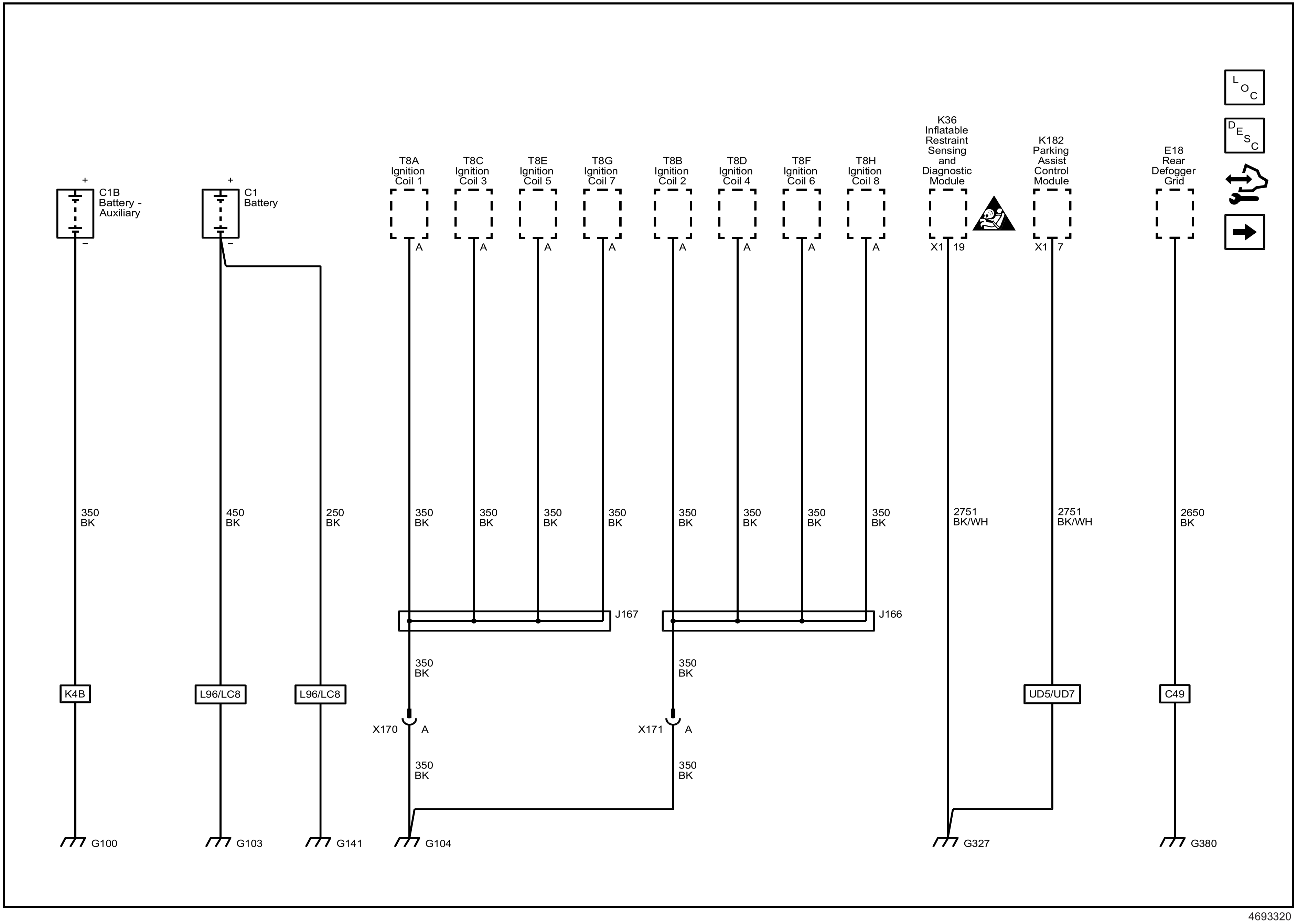
Ground Distribution Schematics (1500) (G100, G103, G108, G130, G140, G141, G327, and G380 (1500))


L O C
D E S C
T8A Ignition Coil 1
T8C Ignition Coil 3
T8E Ignition Coil 5
T8G Ignition Coil 7
T8B Ignition Coil 2
T8D Ignition Coil 4
T8F Ignition Coil 6
T8H Ignition Coil 8
+
C1 Battery
−
+
C1B Battery - Auxiliary
−
E18 Rear Defogger Grid
K85 Passenger Presence Module
K36 Inflatable Restraint Sensing and Diagnostic Module
K182 Parking Assist Control Module
1
1
1
1
1
1
1
1
4
X1 19
X1 7
350 BK
350 BK
350 BK
350 BK
350 BK
350 BK
350 BK
350 BK
2751 BK/WH
L83/L86
L83/L86
J167
J166
X320
36
350 BK
250 BK
450 BK
350 BK
2650 BK
2751 BK/WH
2751 BK/WH
350 BK
350 BK
2751 BK/WH
K4D
C49
UD5/UD7
G130
G140
G141
G103
G100
G380
G327
4693318

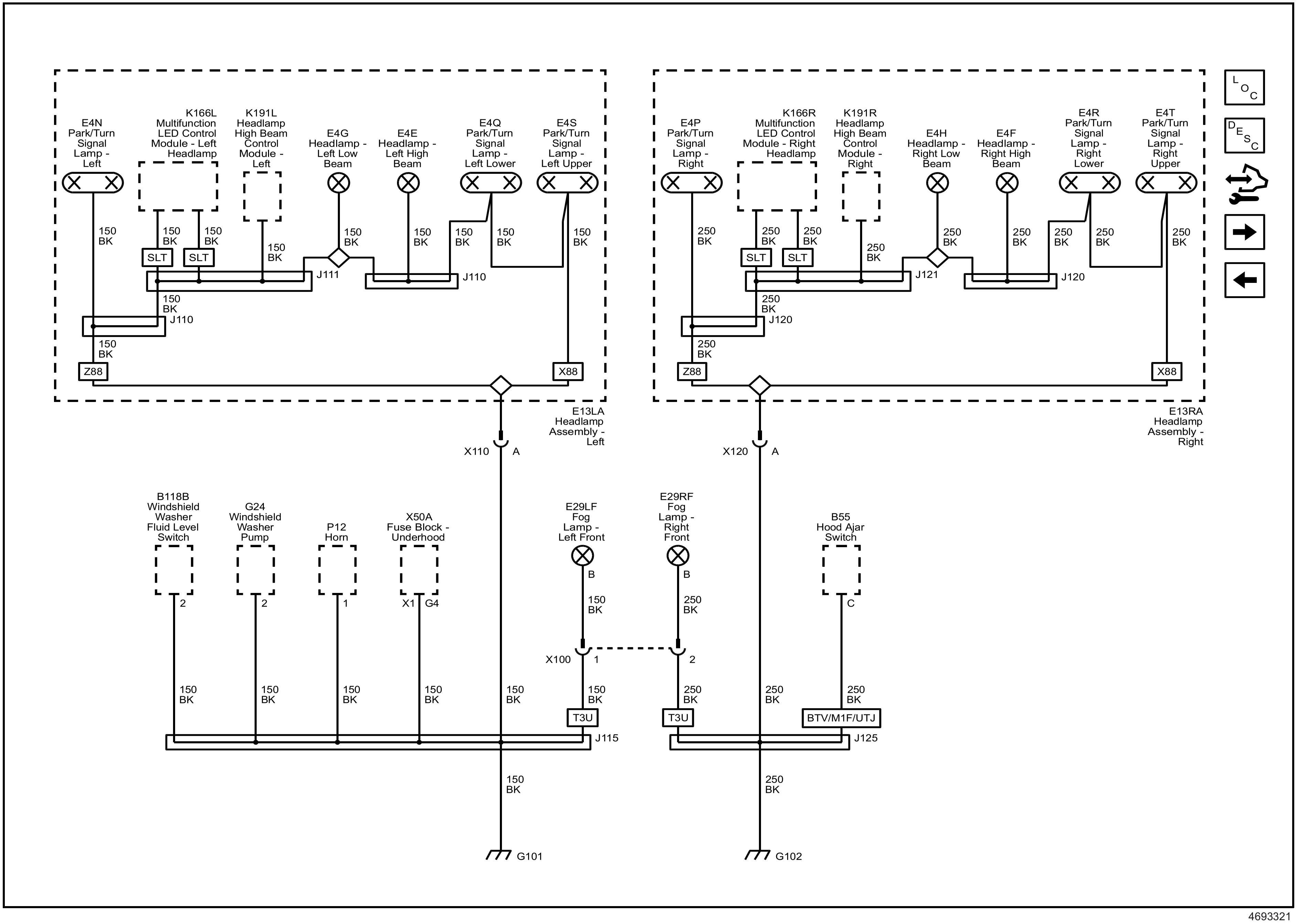
Ground Distribution Schematics (1500) (G400 (1500))


4833733
LOC
DESC
E6 Center High Mounted Stop Lamp
S164R Rear Compartment Lid Release Switch - Right
A101R Cargo Box Stowage Box Lid Latch - Right
1450 BK
2
3
X457
X456
X420
12
J498
ZYD
E33L Cargo Lamp - Left
E33R Cargo Lamp - Right
1750 BK
J499
S0Y/UF2
X400
6
J451
-JL1
JL1
J450
K38 Chassis Control Module
13
E7R License Plate Lamp - Right
E7L License Plate Lamp - Left
E7 License Plate Lamp
B
16
X901
-9J4
9J4
E63-9J4
E63
G400
K19 Suspension Control Module
47
Z95
K133 Trailer Brake Power Control Module
9
E42L Tail Lamp Assembly - Left
A90 Logic
X410
ZYD
X88 Trailer Connector
Z82
E5A Backup Lamp - Left
-ZW9
-ZYD
E5S Tail/Stop and Turn Signal Lamp - Left
ZW9
E33LR CARGO LAMP - LEFT REAR
E33LF CARGO LAMP - LEFT FRONT
1
S164L Rear Compartment Lid Release Switch - Left
A101L Cargo Box Stowage Box Lid Latch - Left
X455
7

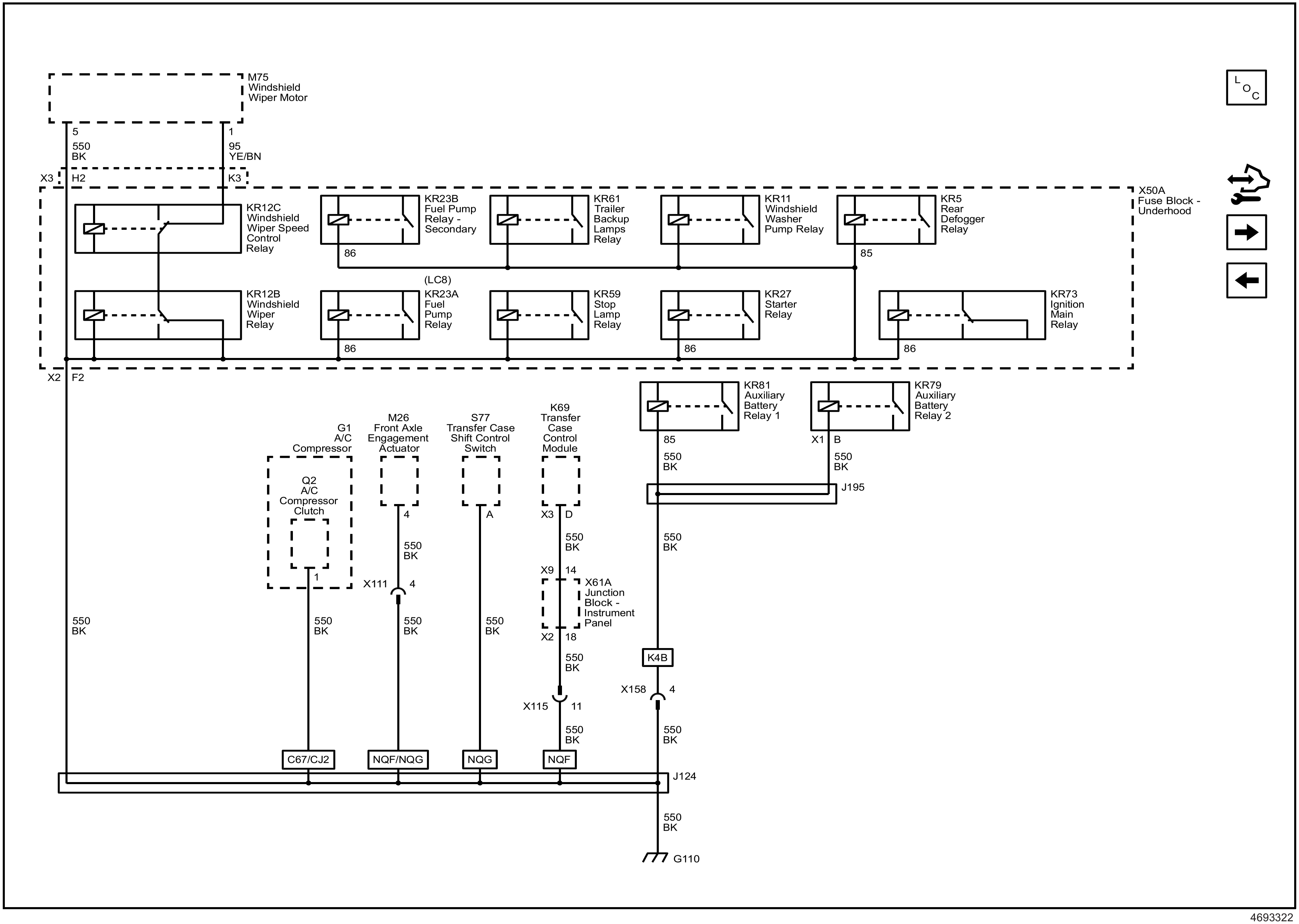
Ground Distribution Schematics (2500/3500) (G100, G103, G104, G141, G327, and G380 (2500/3500))


LOC
DESC
C1B Battery - Auxiliary
+
–
C1 Battery
T8A Ignition Coil 1
T8C Ignition Coil 3
T8E Ignition Coil 5
T8G Ignition Coil 7
T8B Ignition Coil 2
T8D Ignition Coil 4
T8F Ignition Coil 6
T8H Ignition Coil 8
K36 Inflatable Restraint Sensing and Diagnostic Module
K182 Parking Assist Control Module
E18 Rear Defogger Grid
A
X1 19
X1 7
350 BK
450 BK
250 BK
2751 BK/WH
2650 BK
J167
J166
K4B
L96/LC8
UD5/UD7
C49
X170
X171
G100
G103
G141
G104
G327
G380
4693320

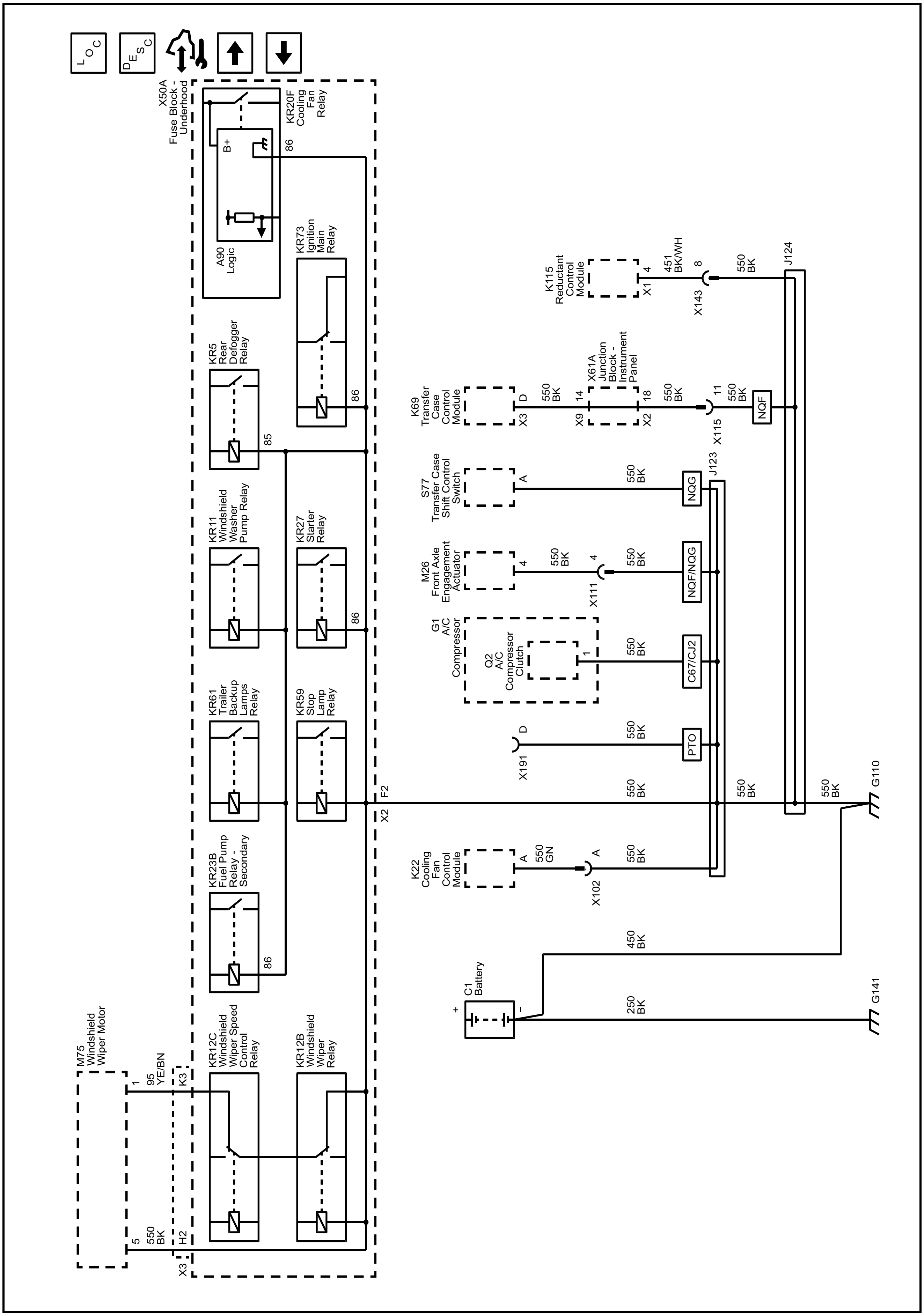
Ground Distribution Schematics (2500/3500) (G101 and G102 (2500/3500))


E4N Park/Turn Signal Lamp - Left
K166L Multifunction LED Control Module - Left Headlamp
K191L Headlamp High Beam Control Module - Left
E4G Headlamp - Left Low Beam
E4E Headlamp - Left High Beam
E4Q Park/Turn Signal Lamp - Left Lower
E4S Park/Turn Signal Lamp - Left Upper
150 BK
SLT
J111
J110
Z88
X88
E13LA Headlamp Assembly - Left
X110
A
E4P Park/Turn Signal Lamp - Right
K166R Multifunction LED Control Module - Right Headlamp
K191R Headlamp High Beam Control Module - Right
E4H Headlamp - Right Low Beam
E4F Headlamp - Right High Beam
E4R Park/Turn Signal Lamp - Right Lower
E4T Park/Turn Signal Lamp - Right Upper
250 BK
J121
J120
E13RA Headlamp Assembly - Right
X120
B118B Windshield Washer Fluid Level Switch
G24 Windshield Washer Pump
P12 Horn
X50A Fuse Block - Underhood
X1
G4
E29LF Fog Lamp - Left Front
E29RF Fog Lamp - Right Front
B55 Hood Ajar Switch
B
C
1
2
X100
T3U
BTV/M1F/UTJ
J115
J125
G101
G102
4693321

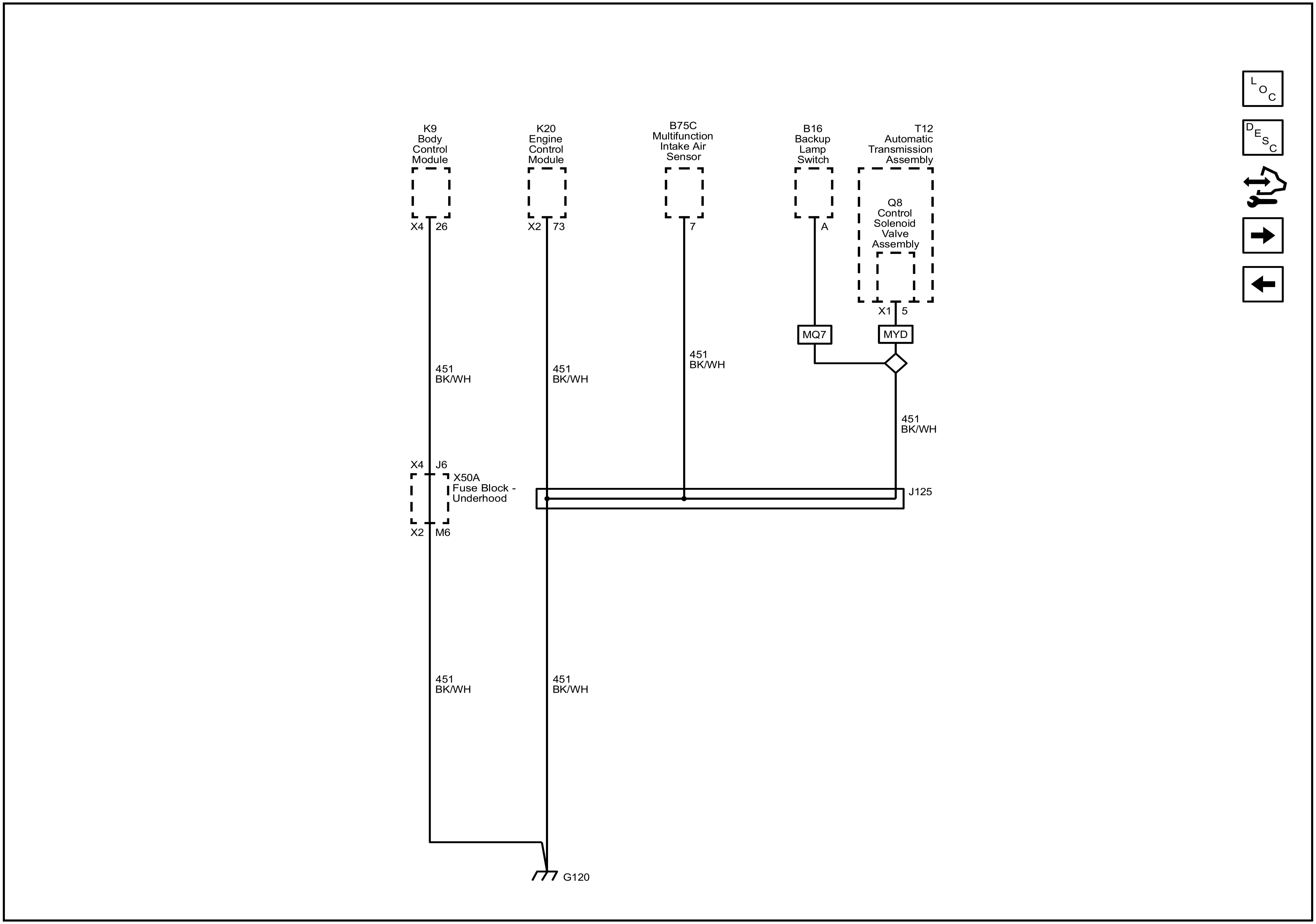
Ground Distribution Schematics (2500/3500) (G110 (2500/3500 with L96 or LC8))


L O C
M75 Windshield Wiper Motor
5
550 BK
1
95 YE/BN
X3
H2
K3
X50A Fuse Block - Underhood
KR12C Windshield Wiper Speed Control Relay
KR23B Fuel Pump Relay - Secondary
86
KR61 Trailer Backup Lamps Relay
KR11 Windshield Washer Pump Relay
KR5 Rear Defogger Relay
85
(LC8)
KR12B Windshield Wiper Relay
KR23A Fuel Pump Relay
86
KR59 Stop Lamp Relay
KR27 Starter Relay
86
KR73 Ignition Main Relay
86
X2
F2
KR81 Auxiliary Battery Relay 1
KR79 Auxiliary Battery Relay 2
85
550 BK
X1
B
550 BK
J195
550 BK
G1 A/C Compressor
Q2 A/C Compressor Clutch
1
M26 Front Axle Engagement Actuator
4
550 BK
X111
4
S77 Transfer Case Shift Control Switch
A
K69 Transfer Case Control Module
X3
D
550 BK
X9
14
X61A Junction Block - Instrument Panel
X2
18
550 BK
X115
11
K4B
X158
4
550 BK
550 BK
550 BK
550 BK
550 BK
550 BK
C67/CJ2
NQF/NQG
NQG
NQF
J124
550 BK
G110
4693322

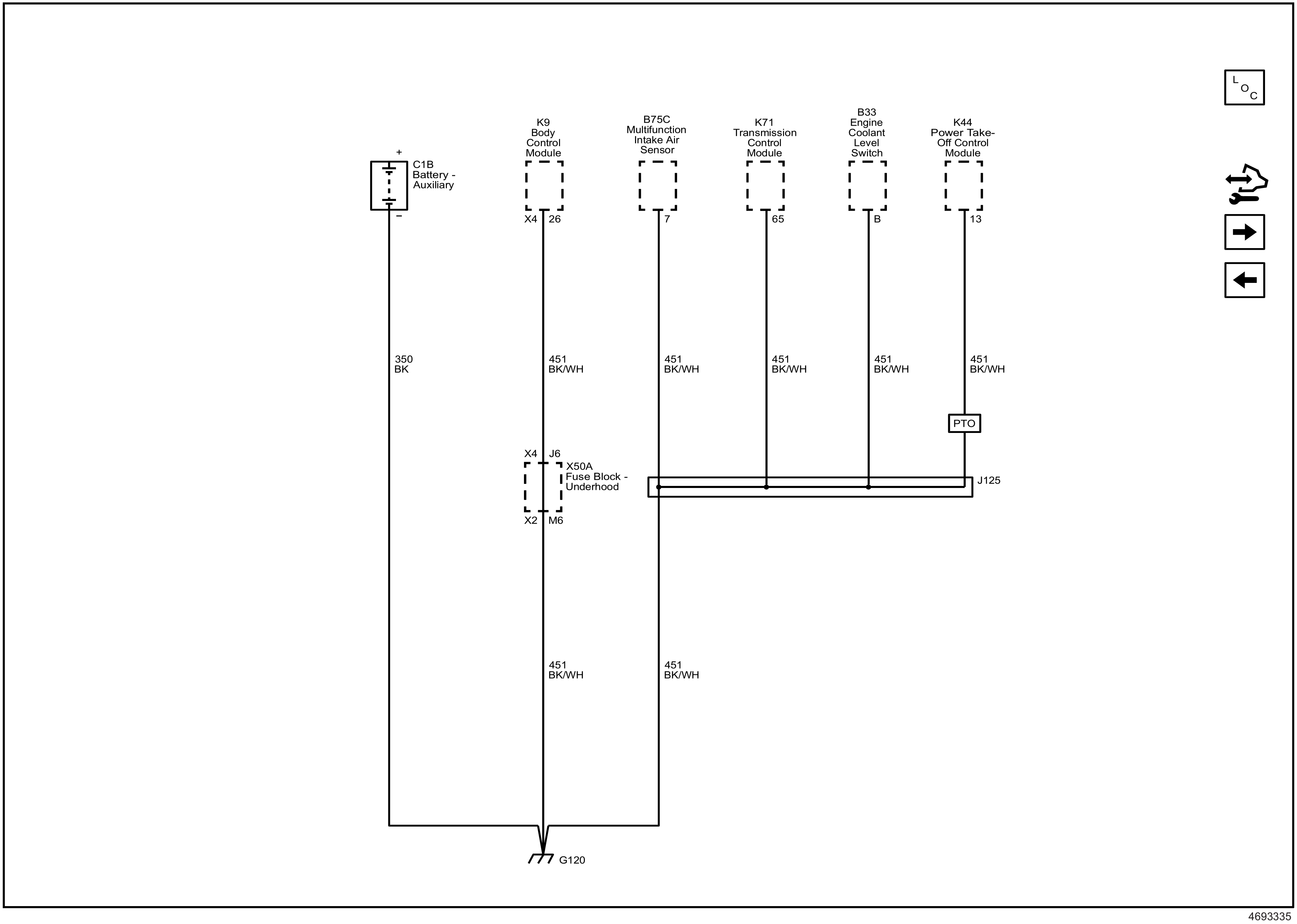
Ground Distribution Schematics (2500/3500) (G110 (2500/3500 with L5P))


4693325
LOC
DESC
X50A Fuse Block - Underhood
KR20F Cooling Fan Relay
B+
86
A90 Logic
KR73 Ignition Main Relay
86
KR5 Rear Defogger Relay
85
KR11 Windshield Washer Pump Relay
KR27 Starter Relay
86
KR61 Trailer Backup Lamps Relay
KR59 Stop Lamp Relay
KR23B Fuel Pump Relay - Secondary
86
KR12C Windshield Wiper Speed Control Relay
KR12B Windshield Wiper Relay
M75 Windshield Wiper Motor
1
95 YE/BN
K3
5
550 BK
H2
X3
F2
X2
K115 Reductant Control Module
X1 4
451 BK/WH
8
X143
550 BK
J124
K69 Transfer Case Control Module
X3 D
550 BK
X9 14
X61A Junction Block - Instrument Panel
X2 18
550 BK
11
X115
550 BK
NQF
S77 Transfer Case Shift Control Switch
A
550 BK
NQG
J123
M26 Front Axle Engagement Actuator
4
550 BK
4
X111
550 BK
NQF/NQG
G1 A/C Compressor
Q2 A/C Compressor Clutch
1
550 BK
C67/CJ2
X191
D
550 BK
PTO
550 BK
550 BK
550 BK
G110
K22 Cooling Fan Control Module
A
550 GN
A
X102
550 BK
C1 Battery
+
–
450 BK
250 BK
G141

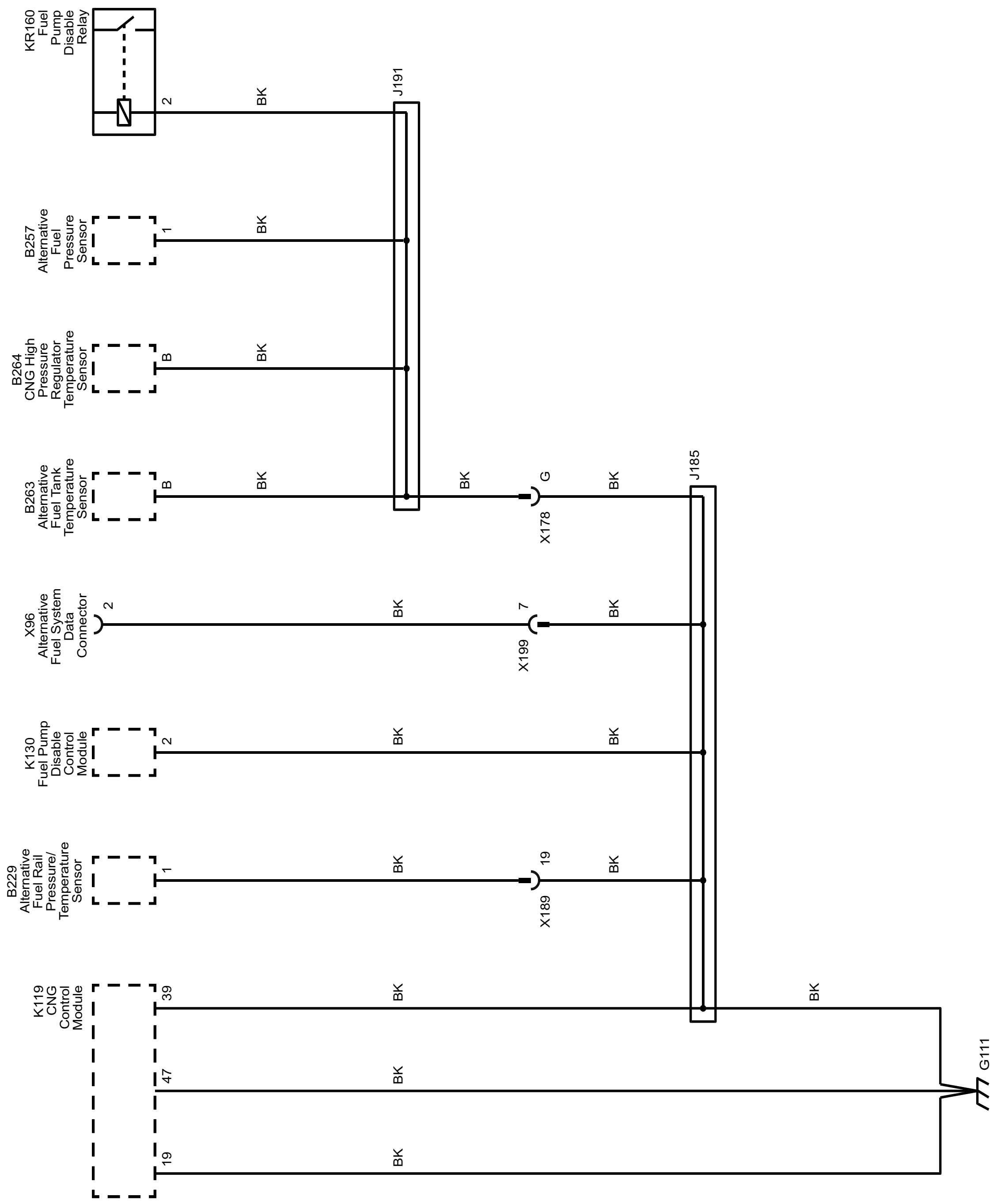
Ground Distribution Schematics (2500/3500) (G120 (2500/3500 with L96 or LC8))


K9
Body
Control
Module
X4 26
451
BK/WH
X4 J6
X50A
Fuse Block -
Underhood
X2 M6
451
BK/WH
K20
Engine
Control
Module
X2 73
451
BK/WH
451
BK/WH
B75C
Multifunction
Intake Air
Sensor
7
451
BK/WH
B16
Backup
Lamp
Switch
A
MQ7
T12
Automatic
Transmission
Assembly
Q8
Control
Solenoid
Valve
Assembly
X1 5
MYD
451
BK/WH
J125
G120
4693330

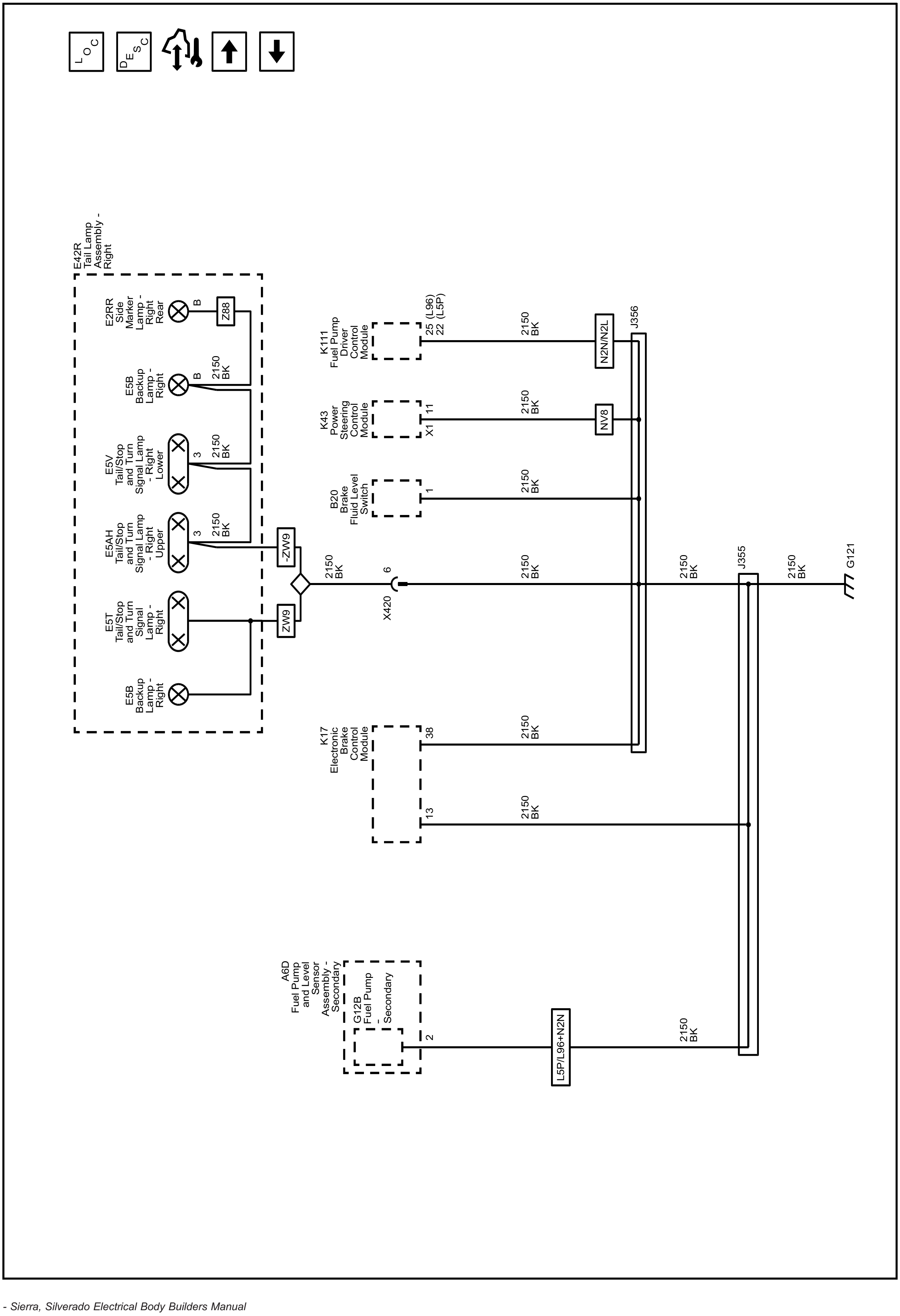
Ground Distribution Schematics (2500/3500) (G120 (2500/3500 with L5P))


L O C
C1B
Battery -
Auxiliary
+
−
350
BK
K9
Body
Control
Module
X4 26
451
BK/WH
X4 J6
X50A
Fuse Block -
Underhood
X2 M6
451
BK/WH
B75C
Multifunction
Intake Air
Sensor
7
451
BK/WH
451
BK/WH
K71
Transmission
Control
Module
65
451
BK/WH
B33
Engine
Coolant
Level
Switch
B
451
BK/WH
K44
Power Take-
Off Control
Module
13
451
BK/WH
PTO
J125
G120
4693335

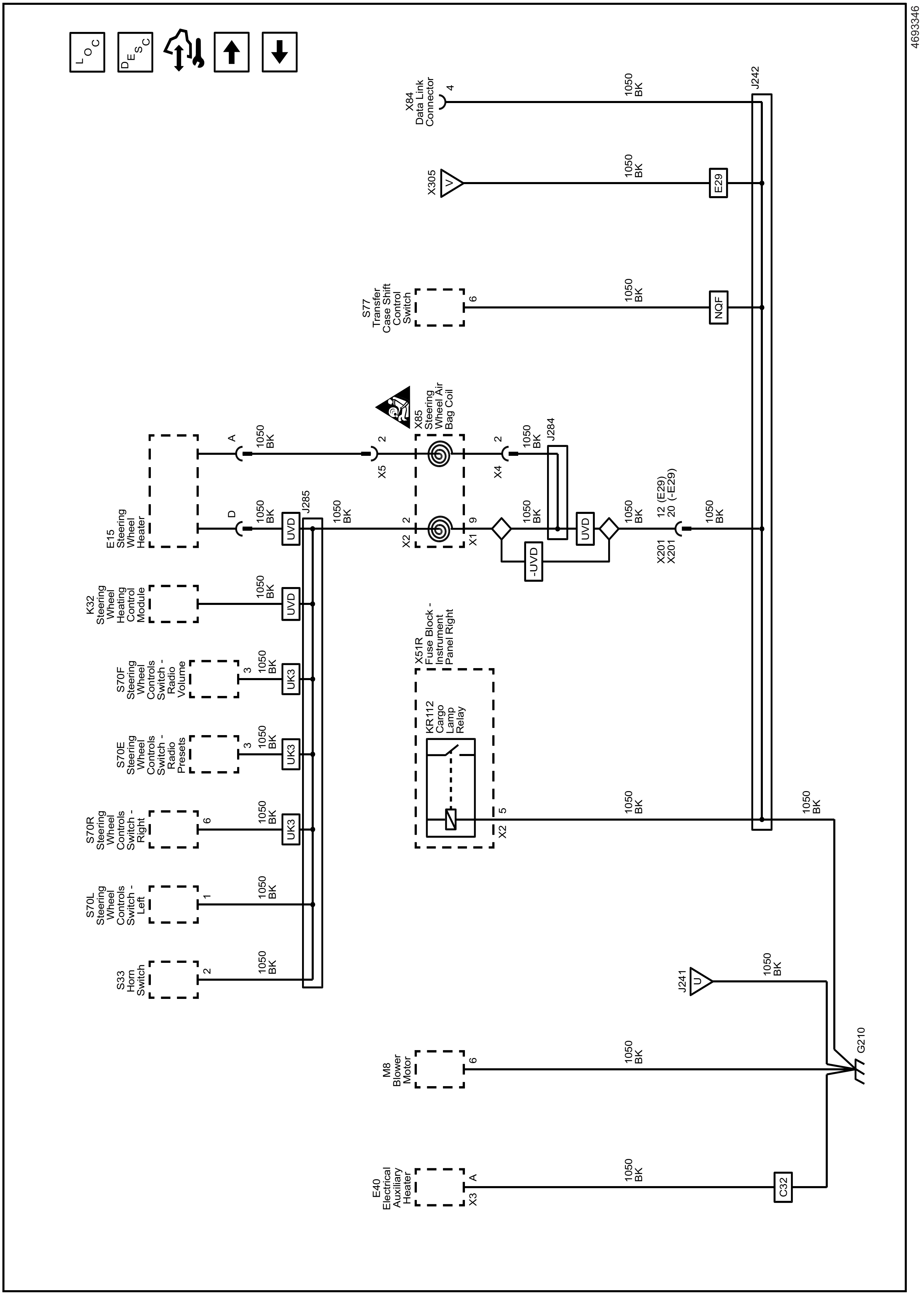
Ground Distribution Schematics (2500/3500) (G111 (2500/3500 with LC8))


4693338
KR160 Fuel Pump Disable Relay
2
BK
J191
B257 Alternative Fuel Pressure Sensor
1
BK
B264 CNG High Pressure Regulator Temperature Sensor
B
BK
B263 Alternative Fuel Tank Temperature Sensor
B
BK
BK
G
X178
BK
J185
X96 Alternative Fuel System Data Connector
2
BK
7
X199
BK
K130 Fuel Pump Disable Control Module
2
BK
BK
B229 Alternative Fuel Rail Pressure/ Temperature Sensor
1
BK
19
X189
BK
K119 CNG Control Module
39
BK
BK
47
BK
19
BK
G111

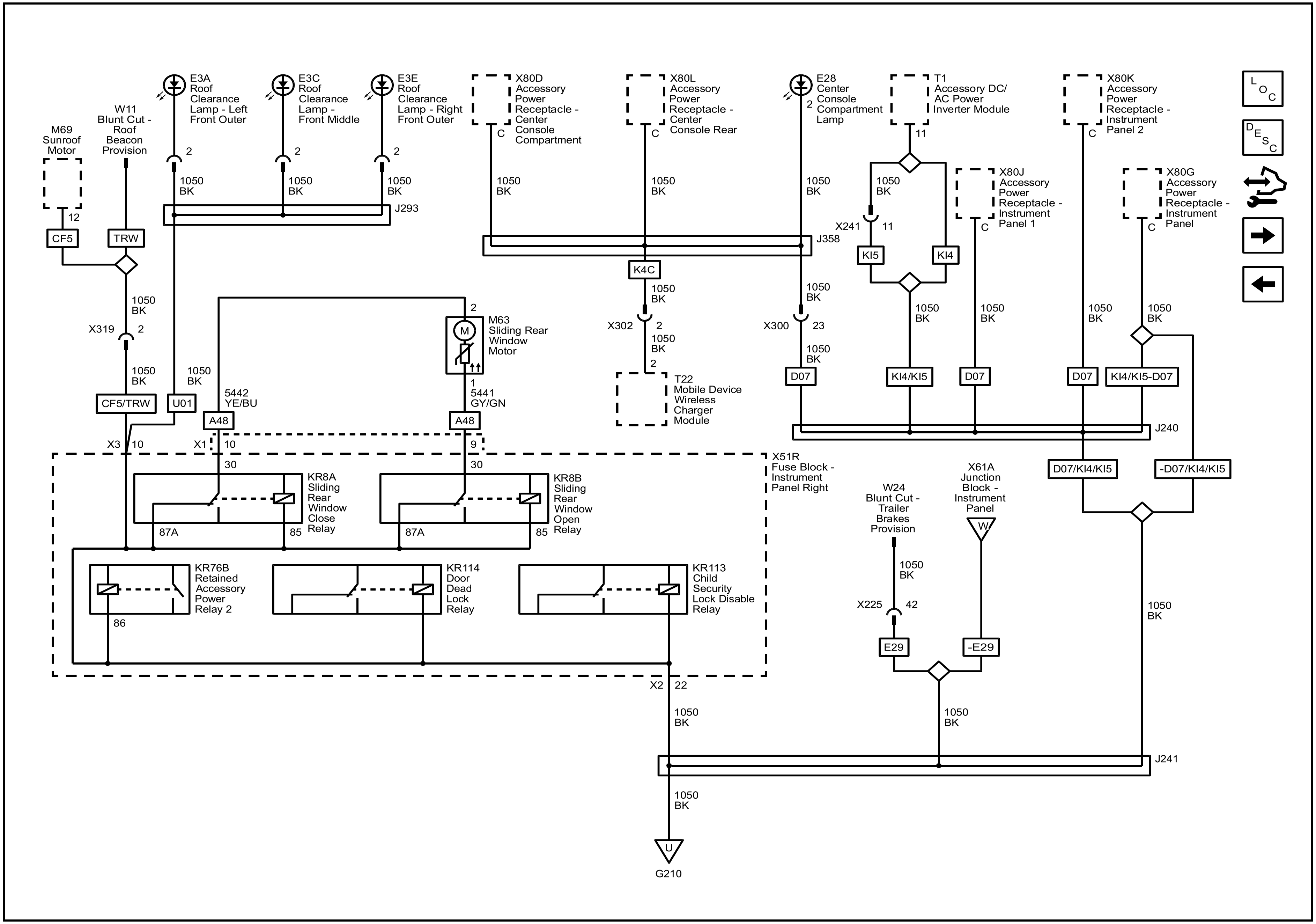
Ground Distribution Schematics (2500/3500) (G121 (2500/3500))


4693340
LOC
DESC
E42R
Tail Lamp
Assembly -
Right
E2RR
Side
Marker
Lamp -
Right
Rear
B
Z88
E5B
Backup
Lamp -
Right
B
2150
BK
E5V
Tail/Stop
and Turn
Signal Lamp
- Right
Lower
3
2150
BK
E5AH
Tail/Stop
and Turn
Signal Lamp
- Right
Upper
3
2150
BK
-ZW9
E5T
Tail/Stop
and Turn
Signal
Lamp -
Right
ZW9
E5B
Backup
Lamp -
Right
2150
BK
6
X420
K111
Fuel Pump
Driver
Control
Module
25 (L96)
22 (L5P)
2150
BK
N2N/N2L
J356
K43
Power
Steering
Control
Module
X1 11
2150
BK
NV8
B20
Brake
Fluid Level
Switch
1
2150
BK
2150
BK
2150
BK
J355
2150
BK
G121
K17
Electronic
Brake
Control
Module
38
2150
BK
13
2150
BK
A6D
Fuel Pump
and Level
Sensor
Assembly -
Secondary
G12B
Fuel Pump
-
Secondary
2
L5P/L96+N2N
2150
BK

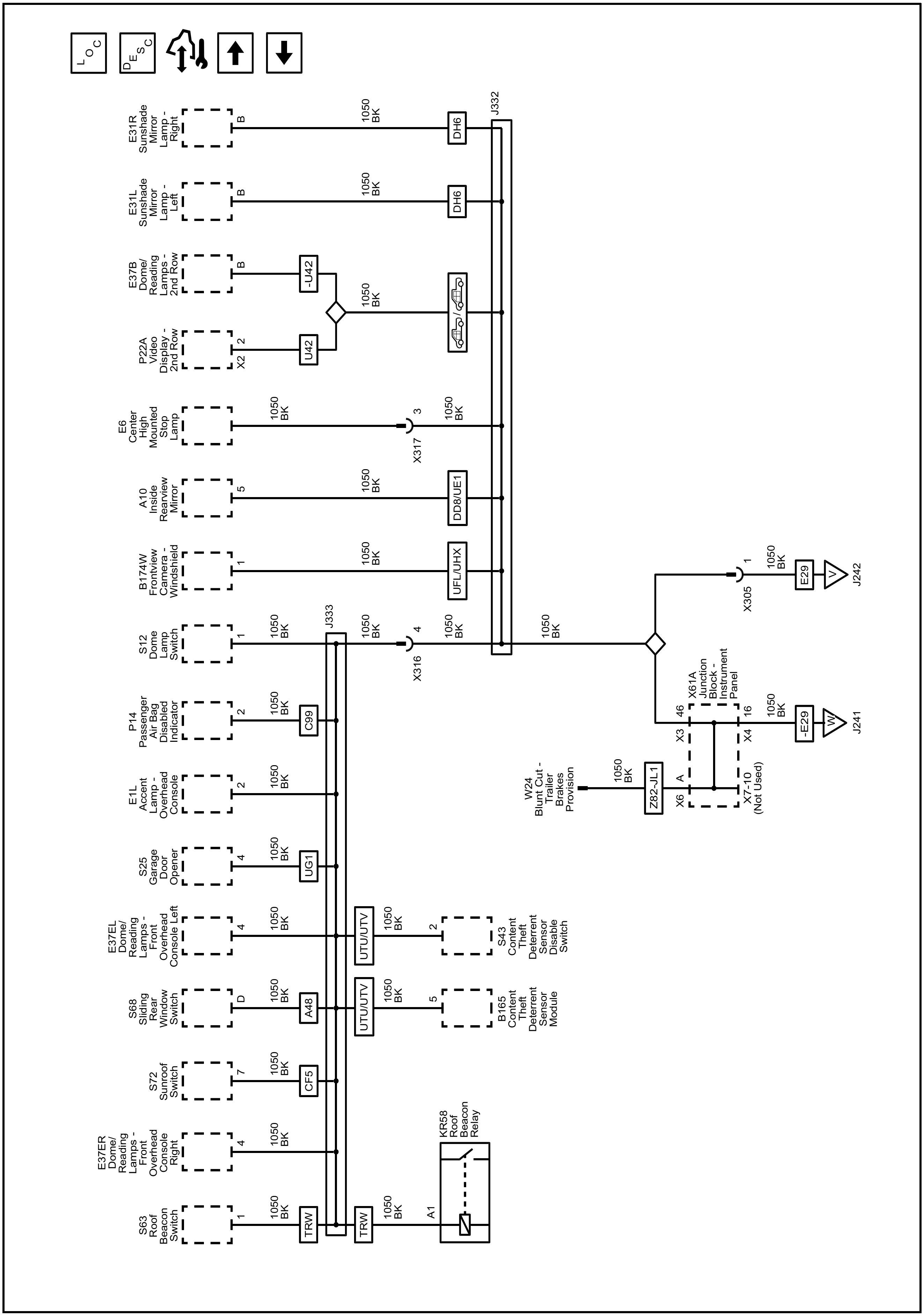
Ground Distribution Schematics (2500/3500) (G210 1 of 3 (2500/3500))


4693346
LOC
DESC
X84 Data Link Connector
4
1050 BK
J242
X305
V
E29
S77 Transfer Case Shift Control Switch
6
NQF
X85 Steering Wheel Air Bag Coil
2
X5
X4
J284
E15 Steering Wheel Heater
A
D
UVD
J285
X2
X1
9
-UVD
12 (E29)
20 (-E29)
X201
X201
K32 Steering Wheel Heating Control Module
S70F Steering Wheel Controls Switch - Radio Volume
3
UK3
S70E Steering Wheel Controls Switch - Radio Presets
S70R Steering Wheel Controls Switch - Right
S70L Steering Wheel Controls Switch - Left
1
S33 Horn Switch
X51R Fuse Block - Instrument Panel Right
KR112 Cargo Lamp Relay
5
J241
U
G210
M8 Blower Motor
E40 Electrical Auxiliary Heater
X3
C32

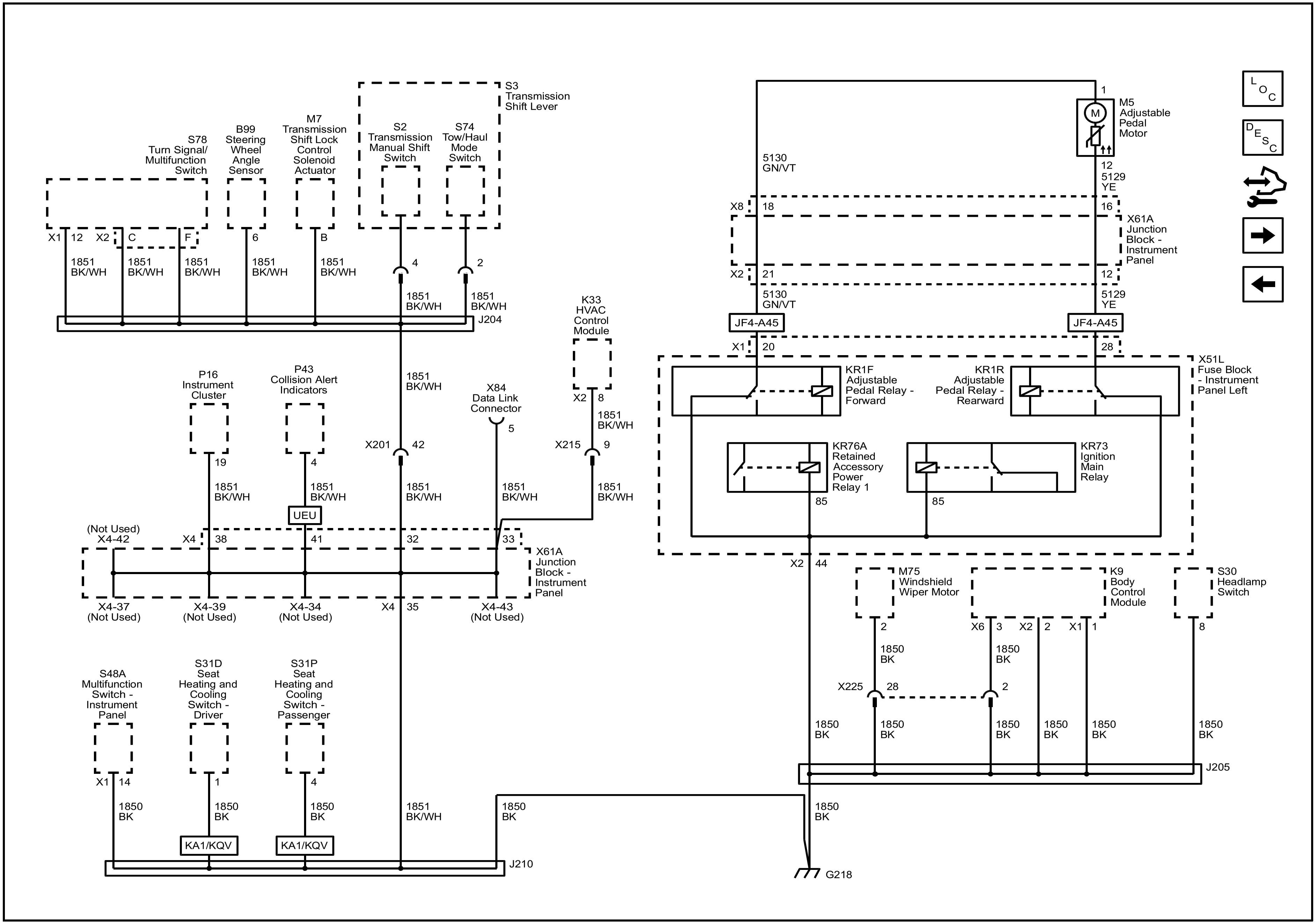
Ground Distribution Schematics (2500/3500) (G210 2 of 3 (2500/3500))


M69 Sunroof Motor
12
CF5
W11 Blunt Cut - Roof Beacon Provision
TRW
1050 BK
X319
2
CF5/TRW
X3
10
E3A Roof Clearance Lamp - Left Front Outer
E3C Roof Clearance Lamp - Front Middle
E3E Roof Clearance Lamp - Right Front Outer
2
1050 BK
J293
U01
5442 YE/BU
A48
X1
M63 Sliding Rear Window Motor
M
1
5441 GY/GN
9
30
KR8A Sliding Rear Window Close Relay
KR8B Sliding Rear Window Open Relay
87A
85
KR76B Retained Accessory Power Relay 2
86
KR114 Door Dead Lock Relay
KR113 Child Security Lock Disable Relay
X51R Fuse Block - Instrument Panel Right
X2
22
X80D Accessory Power Receptacle - Center Console Compartment
X80L Accessory Power Receptacle - Center Console Rear
C
J358
K4C
X302
T22 Mobile Device Wireless Charger Module
E28 Center Console Compartment Lamp
X300
23
D07
T1 Accessory DC/ AC Power Inverter Module
11
X241
KI5
KI4
KI4/KI5
X80J Accessory Power Receptacle - Instrument Panel 1
X80K Accessory Power Receptacle - Instrument Panel 2
X80G Accessory Power Receptacle - Instrument Panel
KI4/KI5-D07
J240
D07/KI4/KI5
-D07/KI4/KI5
W24 Blunt Cut - Trailer Brakes Provision
X225
42
E29
X61A Junction Block - Instrument Panel
W
-E29
J241
U
G210
L O C
D E S C
4693356

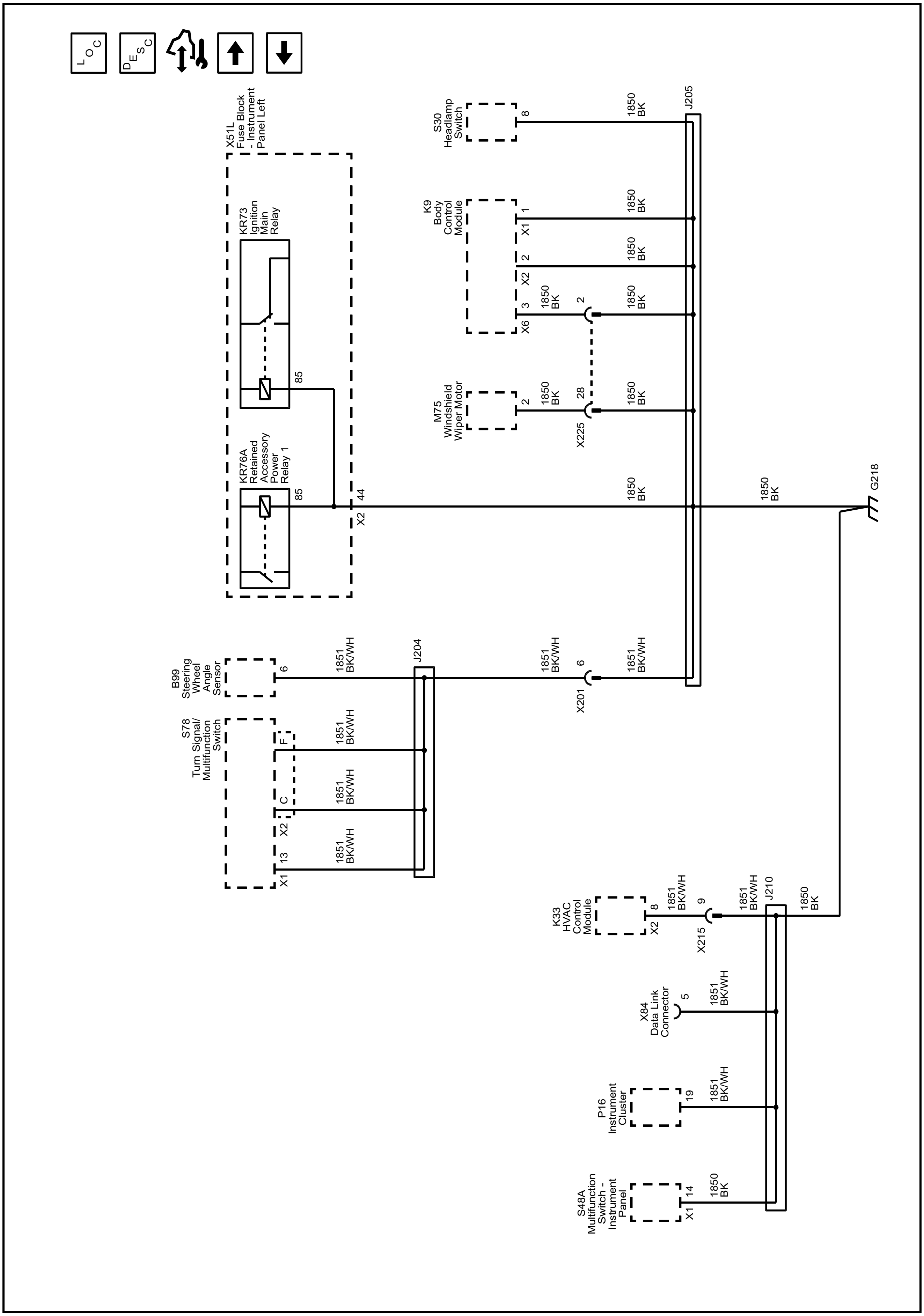
Ground Distribution Schematics (2500/3500) (G210 3 of 3 (2500/3500))


4693360
LOC
DESC
E31R Sunshade Mirror Lamp - Right
B
1050 BK
DH6
J332
E31L Sunshade Mirror Lamp - Left
B
1050 BK
DH6
E37B Dome/ Reading Lamps - 2nd Row
B
-U42
P22A Video Display - 2nd Row
X2 2
U42
1050 BK
E6 Center High Mounted Stop Lamp
1050 BK
X317
3
1050 BK
A10 Inside Rearview Mirror
5
1050 BK
DD8/UE1
B174W Frontview Camera - Windshield
1
1050 BK
UFL/UHX
S12 Dome Lamp Switch
1
1050 BK
J333
1050 BK
X316
4
1050 BK
1050 BK
X305
1
1050 BK
E29
V
J242
X61A Junction Block - Instrument Panel
X3 46
X4 16
1050 BK
-E29
W
J241
W24 Blunt Cut - Trailer Brakes Provision
1050 BK
Z82-JL1
X6 A
X7-10 (Not Used)
P14 Passenger Air Bag Disabled Indicator
2
1050 BK
C99
E1L Accent Lamp - Overhead Console
2
1050 BK
S25 Garage Door Opener
4
1050 BK
UG1
E37EL Dome/ Reading Lamps - Front Overhead Console Left
4
1050 BK
UTU/UTV
1050 BK
2
S43 Content Theft Deterrent Sensor Disable Switch
S68 Sliding Rear Window Switch
D
1050 BK
A48
UTU/UTV
1050 BK
5
B165 Content Theft Deterrent Sensor Module
S72 Sunroof Switch
7
1050 BK
CF5
E37ER Dome/ Reading Lamps - Front Overhead Console Right
4
1050 BK
KR58 Roof Beacon Relay
S63 Roof Beacon Switch
1
1050 BK
TRW
TRW
1050 BK
A1

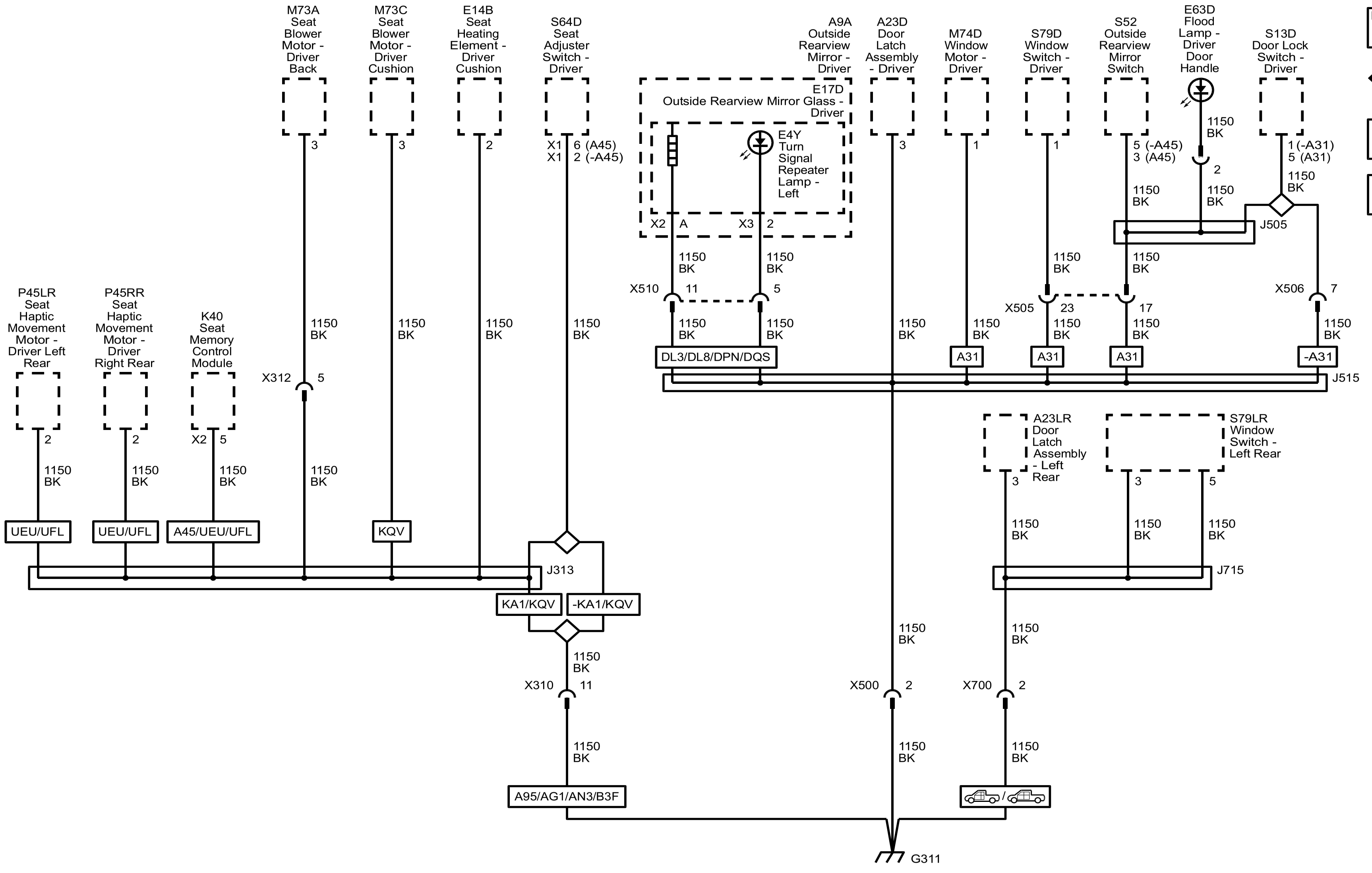
Ground Distribution Schematics (2500/3500) (G218 (2500/3500 except E29))


S78
Turn Signal/
Multifunction
Switch
B99
Steering
Wheel
Angle
Sensor
M7
Transmission
Shift Lock
Control
Solenoid
Actuator
S3
Transmission
Shift Lever
S2
Transmission
Manual Shift
Switch
S74
Tow/Haul
Mode
Switch
X1 12 X2 C F 6 B 4 2
1851 BK/WH
J204
K33
HVAC
Control
Module
X2 8
X215 9
X201 42
P16
Instrument
Cluster
19
P43
Collision Alert
Indicators
4
UEU
X84
Data Link
Connector
5
(Not Used)
X4-42
X4 38 41 32 33
X61A
Junction
Block -
Instrument
Panel
X4-37
(Not Used)
X4-39
(Not Used)
X4-34
(Not Used)
X4 35
X4-43
(Not Used)
S48A
Multifunction
Switch -
Instrument
Panel
X1 14
S31D
Seat
Heating and
Cooling
Switch -
Driver
1
S31P
Seat
Heating and
Cooling
Switch -
Passenger
4
KA1/KQV
1850 BK
J210
M5
Adjustable
Pedal
Motor
1
M
12
5129 YE
5130 GN/VT
X8 18 16
X2 21 12
JF4-A45
X1 20 28
X51L
Fuse Block
- Instrument
Panel Left
KR1F
Adjustable
Pedal Relay -
Forward
KR1R
Adjustable
Pedal Relay -
Rearward
KR76A
Retained
Accessory
Power
Relay 1
KR73
Ignition
Main
Relay
85
X2 44
M75
Windshield
Wiper Motor
2
K9
Body
Control
Module
X6 3 X2 2 X1 1
S30
Headlamp
Switch
8
X225 28
2
J205
G218
4693361
L O C
D E S C

Ground Distribution Schematics (2500/3500) (G218 (2500/3500 with E29))

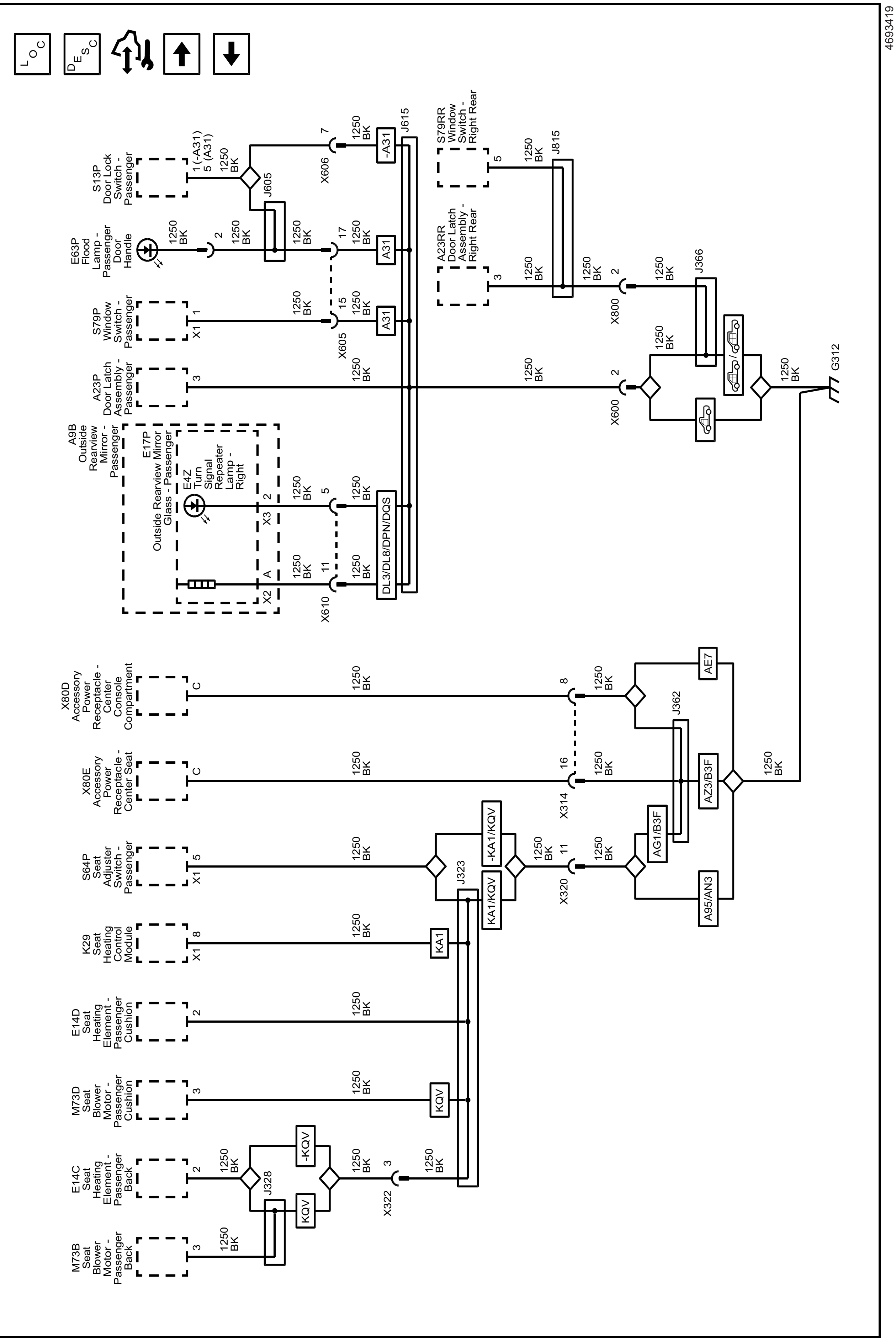

4693362
LOC
DESC
X51L Fuse Block - Instrument Panel Left
KR73 Ignition Main Relay
KR76A Retained Accessory Power Relay 1
85
85
44
X2
S30 Headlamp Switch
8
1850 BK
J205
K9 Body Control Module
X1 1
X2 2
X6 3
1850 BK
2
M75 Windshield Wiper Motor
2
28
X225
G218
B99 Steering Wheel Angle Sensor
6
1851 BK/WH
J204
X201
S78 Turn Signal/ Multifunction Switch
F
C
X2
X1 13
K33 HVAC Control Module
X2 8
9
X215
J210
X84 Data Link Connector
5
P16 Instrument Cluster
19
S48A Multifunction Switch - Instrument Panel
X1 14

Ground Distribution Schematics (2500/3500) (G311 (2500/3500))

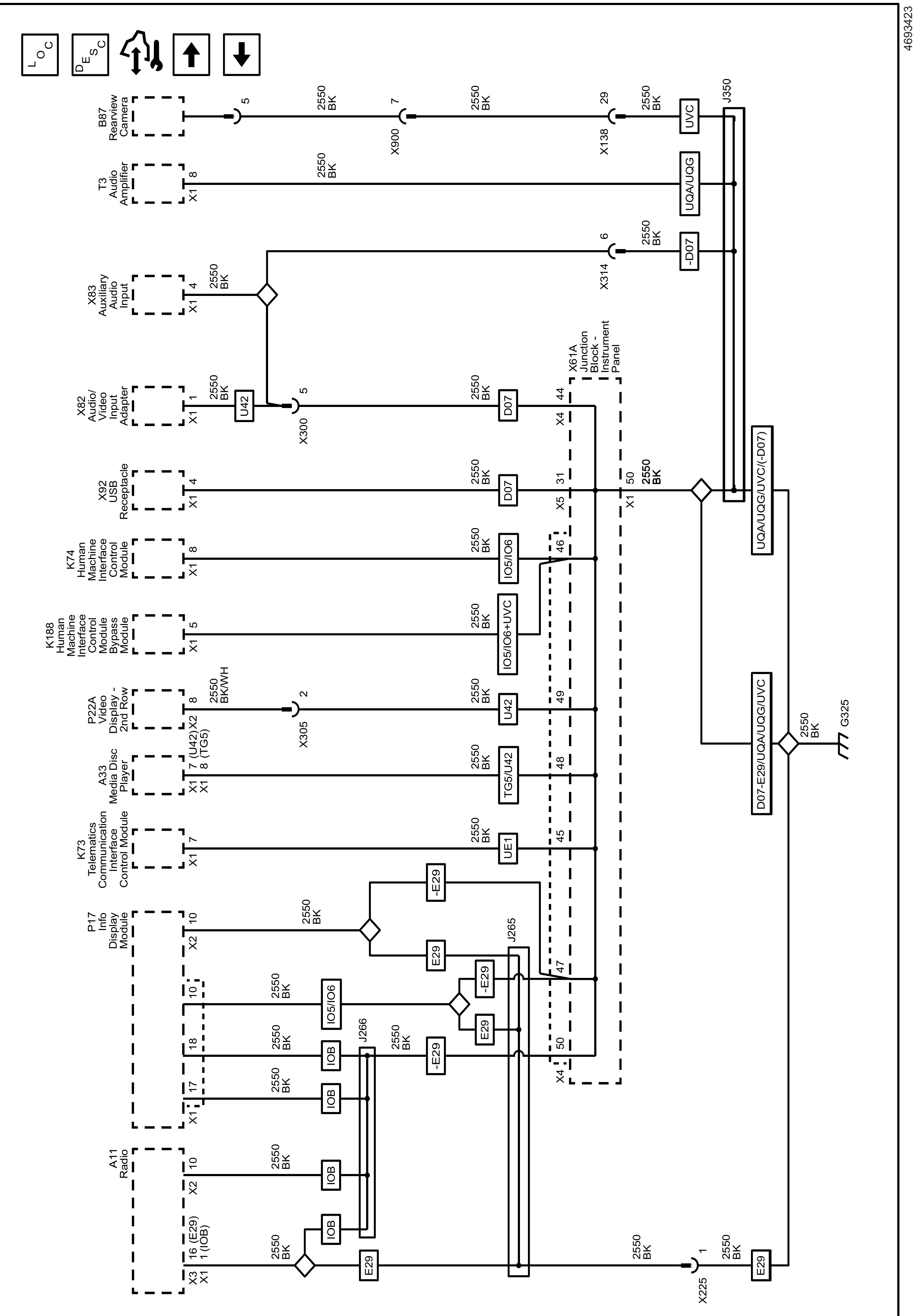

P45LR Seat Haptic Movement Motor - Driver Left Rear
P45RR Seat Haptic Movement Motor - Driver Right Rear
K40 Seat Memory Control Module
M73A Seat Blower Motor - Driver Back
M73C Seat Blower Motor - Driver Cushion
E14B Seat Heating Element - Driver Cushion
S64D Seat Adjuster Switch - Driver
A9A Outside Rearview Mirror - Driver
E17D Outside Rearview Mirror Glass - Driver
E4Y Turn Signal Repeater Lamp - Left
A23D Door Latch Assembly - Driver
M74D Window Motor - Driver
S79D Window Switch - Driver
S52 Outside Rearview Mirror Switch
E63D Flood Lamp - Driver Door Handle
S13D Door Lock Switch - Driver
A23LR Door Latch Assembly - Left Rear
S79LR Window Switch - Left Rear
1150 BK
X1 6 (A45)
X1 2 (-A45)
5 (-A45)
3 (A45)
1 (-A31)
5 (A31)
X2 A
X3 2
X2 5
X510 11
X505 23
X506 7
X312 5
X310 11
X500 2
X700 2
DL3/DL8/DPN/DQS
A31
-A31
UEU/UFL
A45/UEU/UFL
KQV
KA1/KQV
-KA1/KQV
A95/AG1/AN3/B3F
J313
J505
J515
J715
G311

4693364

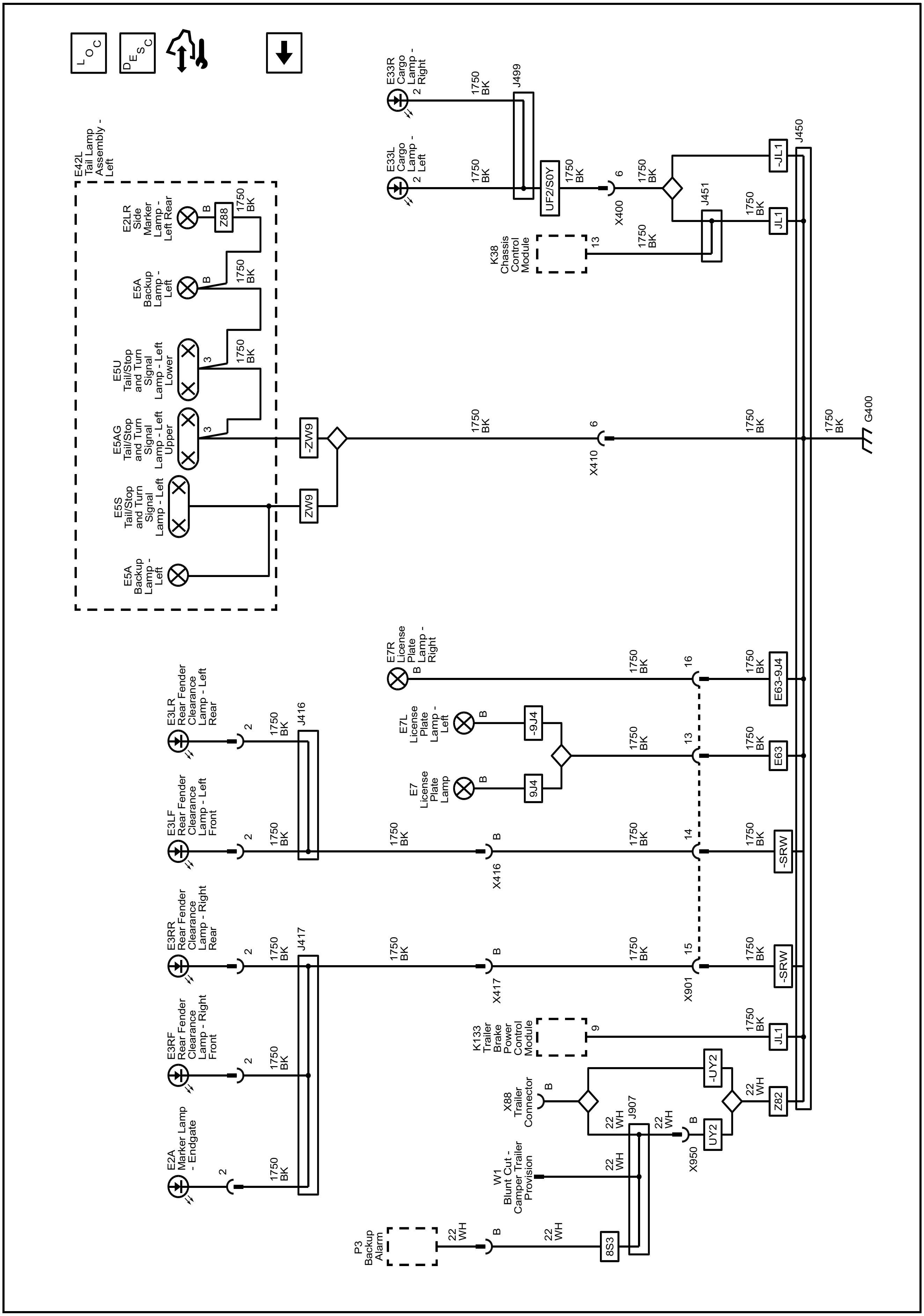
Ground Distribution Schematics (2500/3500) (G312 (2500/3500))


4693419
LOC
DESC
S13P Door Lock Switch - Passenger
1 (-A31)
5 (A31)
E63P Flood Lamp - Passenger Door Handle
S79P Window Switch - Passenger
A23P Door Latch Assembly - Passenger
A9B Outside Rearview Mirror - Passenger
E17P Outside Rearview Mirror Glass - Passenger
E4Z Turn Signal Repeater Lamp - Right
X1
X2
X3
X80D Accessory Power Receptacle - Center Console Compartment
X80E Accessory Power Receptacle - Center Seat
S64P Seat Adjuster Switch - Passenger
K29 Seat Heating Control Module
E14D Seat Heating Element - Passenger Cushion
M73D Seat Blower Motor - Passenger Cushion
E14C Seat Heating Element - Passenger Back
M73B Seat Blower Motor - Passenger Back
S79RR Window Switch - Right Rear
A23RR Door Latch Assembly - Right Rear
1250 BK
J605
J615
J815
J366
J362
J323
J328
X606
X605
X610
X600
X800
X314
X320
X322
A31
-A31
DL3/DL8/DPN/DQS
KA1
KQV
-KQV
KA1/KQV
-KA1/KQV
AG1/B3F
AZ3/B3F
AE7
A95/AN3
G312

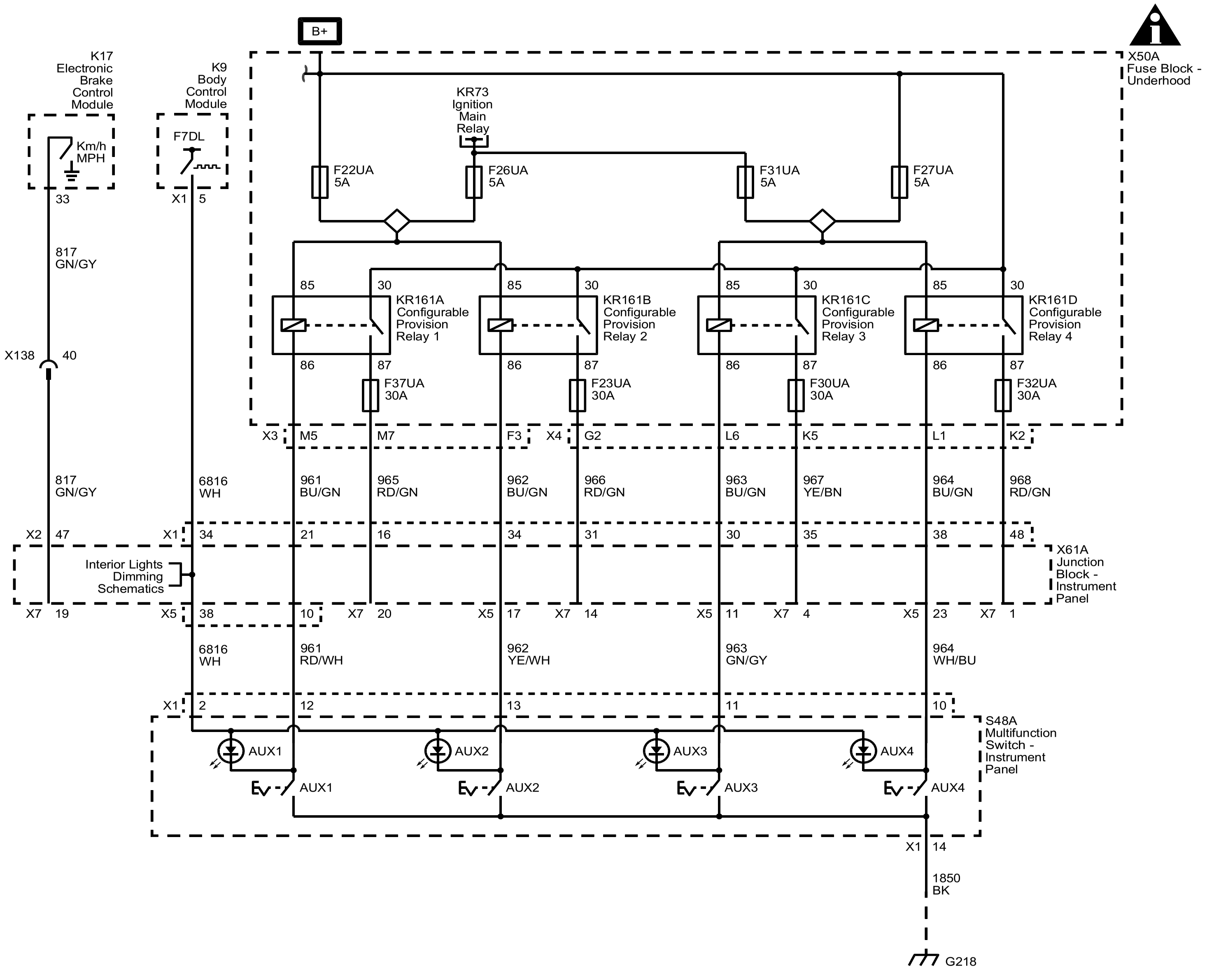
Ground Distribution Schematics (2500/3500) (G325 (2500/3500))


4693423
B87 Rearview Camera
T3 Audio Amplifier
X83 Auxiliary Audio Input
X82 Audio/Video Input Adapter
X92 USB Receptacle
K74 Human Machine Interface Control Module
K188 Human Machine Interface Control Module Bypass Module
P22A Video Display - 2nd Row
A33 Media Disc Player
K73 Telematics Communication Interface Control Module
P17 Info Display Module
A11 Radio
X61A Junction Block - Instrument Panel
X900
X138
X314
X300
X305
X225
J350
J265
J266
G325
2550 BK
2550 BK/WH
UVC
UQA/UQG
-D07
D07
U42
IO5/IO6
IO5/IO6+UVC
TG5/U42
UE1
E29
-E29
IOB
UQA/UQG/UVC/(-D07)
D07-E29/UQA/UQG/UVC
X1 8
X1 4
X1 1
X1 5
X2 8
X1 7 (U42)
X1 8 (TG5)
X1 7
X2 10
X1 10
X1 18
X1 17
X3 16 (E29)
X1 1 (IOB)
X4 44
X5 31
X1 50
46
49
48
45
47
X4 50

Ground Distribution Schematics (2500/3500) (G400 (2500/3500))

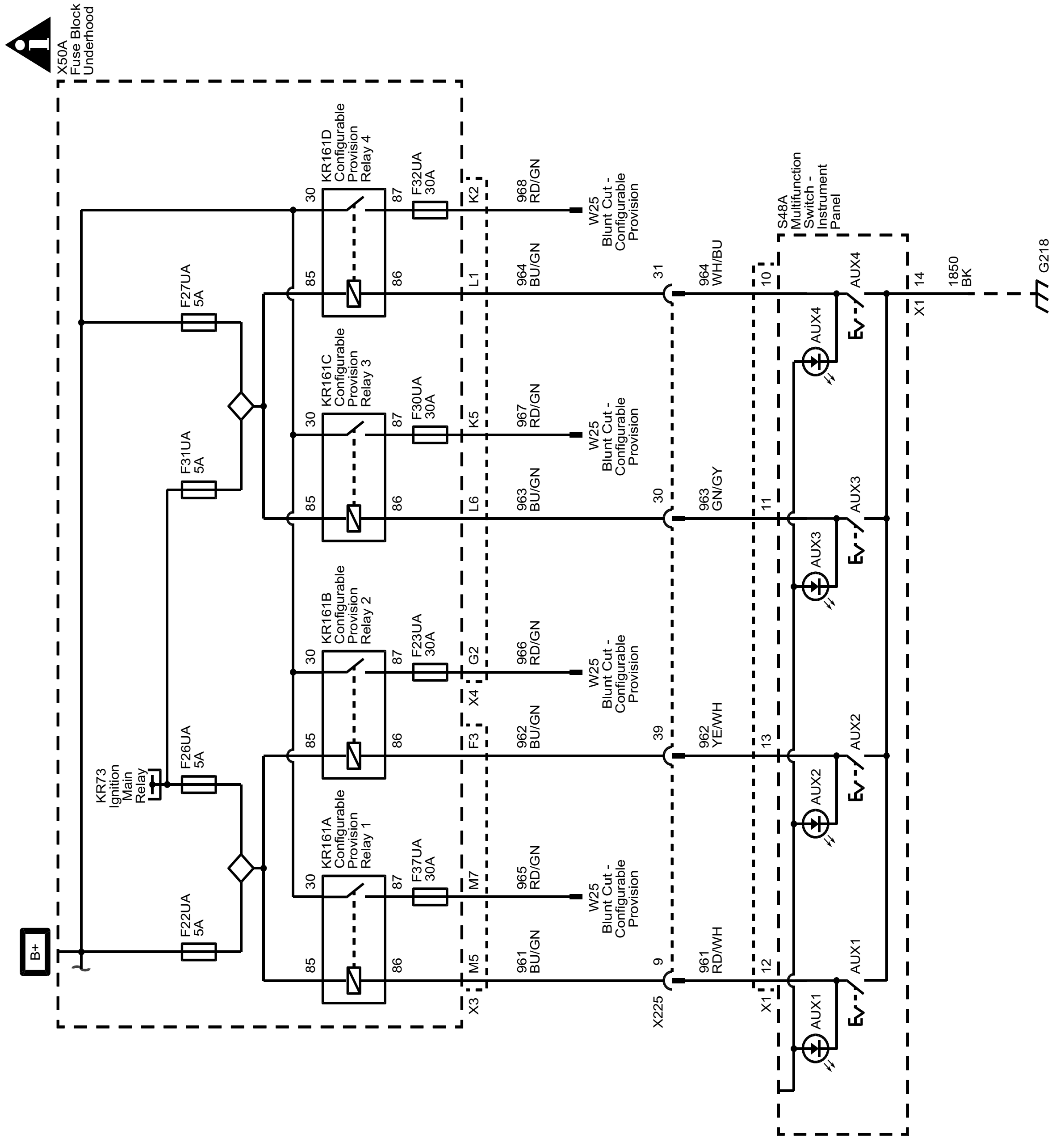

4693426
L O C
D E S C
E42L Tail Lamp Assembly - Left
E2LR Side Marker Lamp - Left Rear
E5A Backup Lamp - Left
E5U Tail/Stop and Turn Signal Lamp - Left Lower
E5AG Tail/Stop and Turn Signal Lamp - Left Upper
E5S Tail/Stop and Turn Signal Lamp - Left
E5A Backup Lamp - Left
Z88
ZW9
-ZW9
B
3
1750 BK
E33L Cargo Lamp - Left
E33R Cargo Lamp - Right
2
J499
UF2/S0Y
6
X400
J451
J450
K38 Chassis Control Module
13
-JL1
JL1
X410
G400
E3LR Rear Fender Clearance Lamp - Left Rear
E3LF Rear Fender Clearance Lamp - Left Front
E3RR Rear Fender Clearance Lamp - Right Rear
E3RF Rear Fender Clearance Lamp - Right Front
E2A Marker Lamp - Endgate
J416
J417
X416
X417
E7R License Plate Lamp - Right
E7L License Plate Lamp - Left
E7 License Plate Lamp
-9J4
9J4
16
13
14
15
X901
E63-9J4
E63
-SRW
K133 Trailer Brake Power Control Module
9
X88 Trailer Connector
-UY2
UY2
Z82
22 WH
J907
X950
W1 Blunt Cut - Camper Trailer Provision
P3 Backup Alarm
8S3

Upfitter Provision Schematics (Upfitter Provisions (except E29))

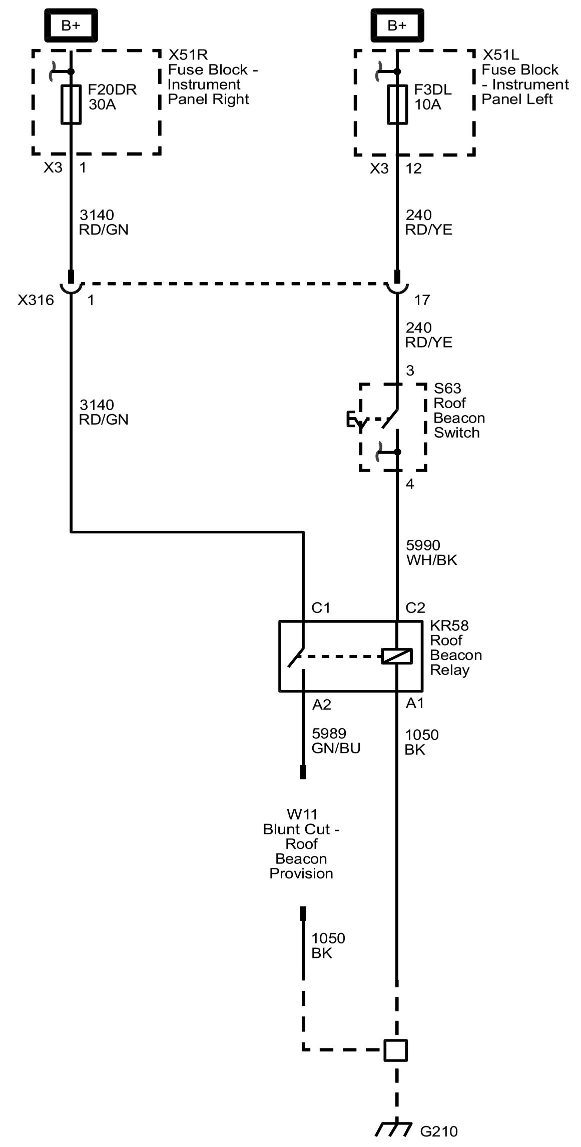

B+
X50A
Fuse Block -
Underhood
K17
Electronic
Brake
Control
Module
Km/h
MPH
33
K9
Body
Control
Module
F7DL
X1 5
KR73
Ignition
Main
Relay
F22UA
5A
F26UA
5A
F31UA
5A
F27UA
5A
85
30
86
87
KR161A
Configurable
Provision
Relay 1
KR161B
Configurable
Provision
Relay 2
KR161C
Configurable
Provision
Relay 3
KR161D
Configurable
Provision
Relay 4
F37UA
30A
F23UA
30A
F30UA
30A
F32UA
30A
X3 M5 M7 F3
X4 G2 L6 K5 L1 K2
817
GN/GY
X138 40
6816
WH
961
BU/GN
965
RD/GN
962
BU/GN
966
RD/GN
963
BU/GN
967
YE/BN
964
BU/GN
968
RD/GN
X2 47
X1 34 21 16 34 31 30 35 38 48
X61A
Junction
Block -
Instrument
Panel
Interior Lights
Dimming
Schematics
X7 19
X5 38 10
X7 20
X5 17
X7 14
X5 11
X7 4
X5 23
X7 1
961
RD/WH
962
YE/WH
963
GN/GY
964
WH/BU
X1 2 12 13 11 10
S48A
Multifunction
Switch -
Instrument
Panel
AUX1
AUX2
AUX3
AUX4
X1 14
1850
BK
G218

4693427

Upfitter Provision Schematics (Upfitter Provisions (E29))


4693428
X50A Fuse Block - Underhood
B+
KR73 Ignition Main Relay
F22UA 5A
F26UA 5A
F31UA 5A
F27UA 5A
KR161A Configurable Provision Relay 1
KR161B Configurable Provision Relay 2
KR161C Configurable Provision Relay 3
KR161D Configurable Provision Relay 4
30
85
86
87
F37UA 30A
F23UA 30A
F30UA 30A
F32UA 30A
X3
M5
M7
F3
X4
G2
L6
K5
L1
K2
961 BU/GN
965 RD/GN
962 BU/GN
966 RD/GN
963 BU/GN
967 RD/GN
964 BU/GN
968 RD/GN
W25 Blunt Cut - Configurable Provision
X225
9
39
30
31
961 RD/WH
962 YE/WH
963 GN/GY
964 WH/BU
X1
12
13
11
10
14
S48A Multifunction Switch - Instrument Panel
AUX1
AUX2
AUX3
AUX4
1850 BK
G218

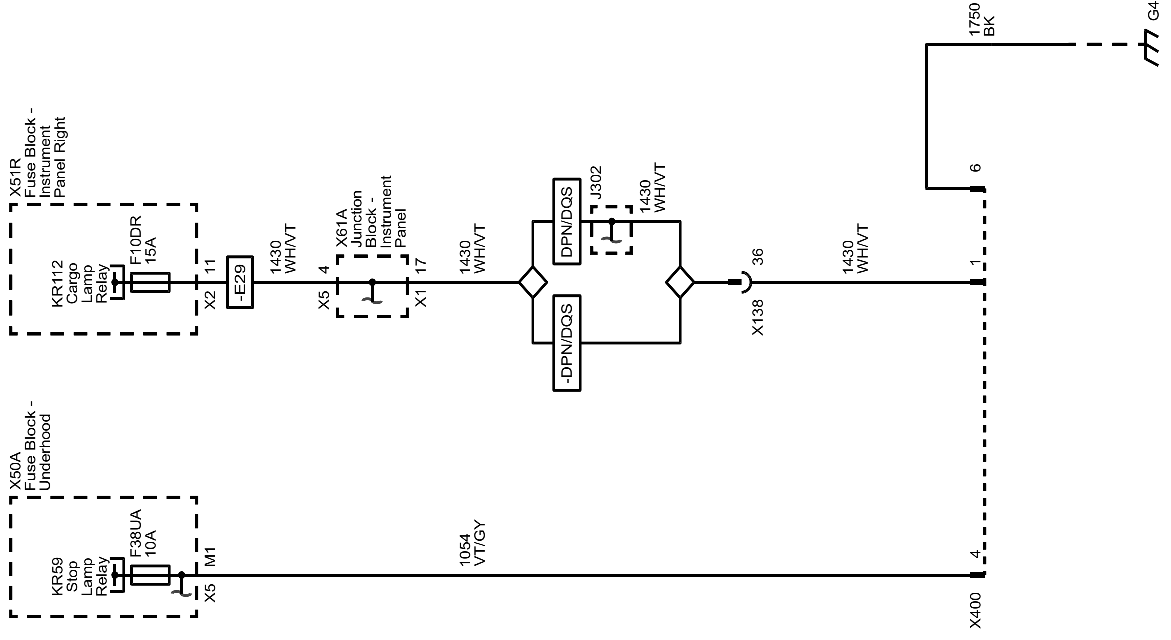
Upfitter Provision Schematics (Roof Beacon Provisions (TRW))


B+
B+
X51R
Fuse Block -
Instrument
Panel Right
F20DR
30A
X3
1
3140
RD/GN
X51L
Fuse Block
- Instrument
Panel Left
F3DL
10A
X3
12
240
RD/YE
X316
1
17
240
RD/YE
3
S63
Roof
Beacon
Switch
4
3140
RD/GN
5990
WH/BK
C1
C2
KR58
Roof
Beacon
Relay
A2
A1
5989
GN/BU
1050
BK
W11
Blunt Cut -
Roof
Beacon
Provision
1050
BK
G210

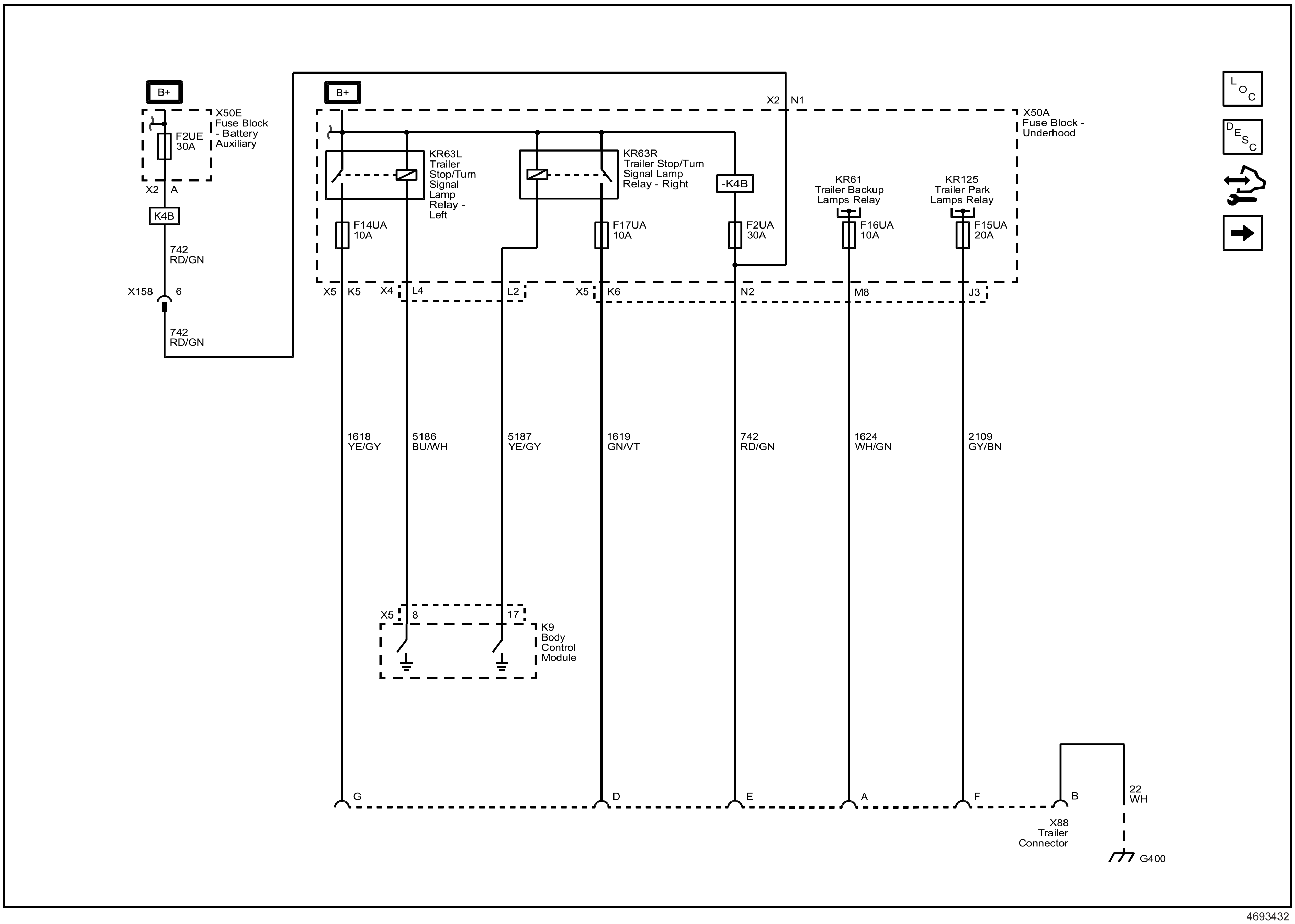
4693429

Upfitter Provision Schematics (Lighting Provisions - Rear of Frame)

4693430

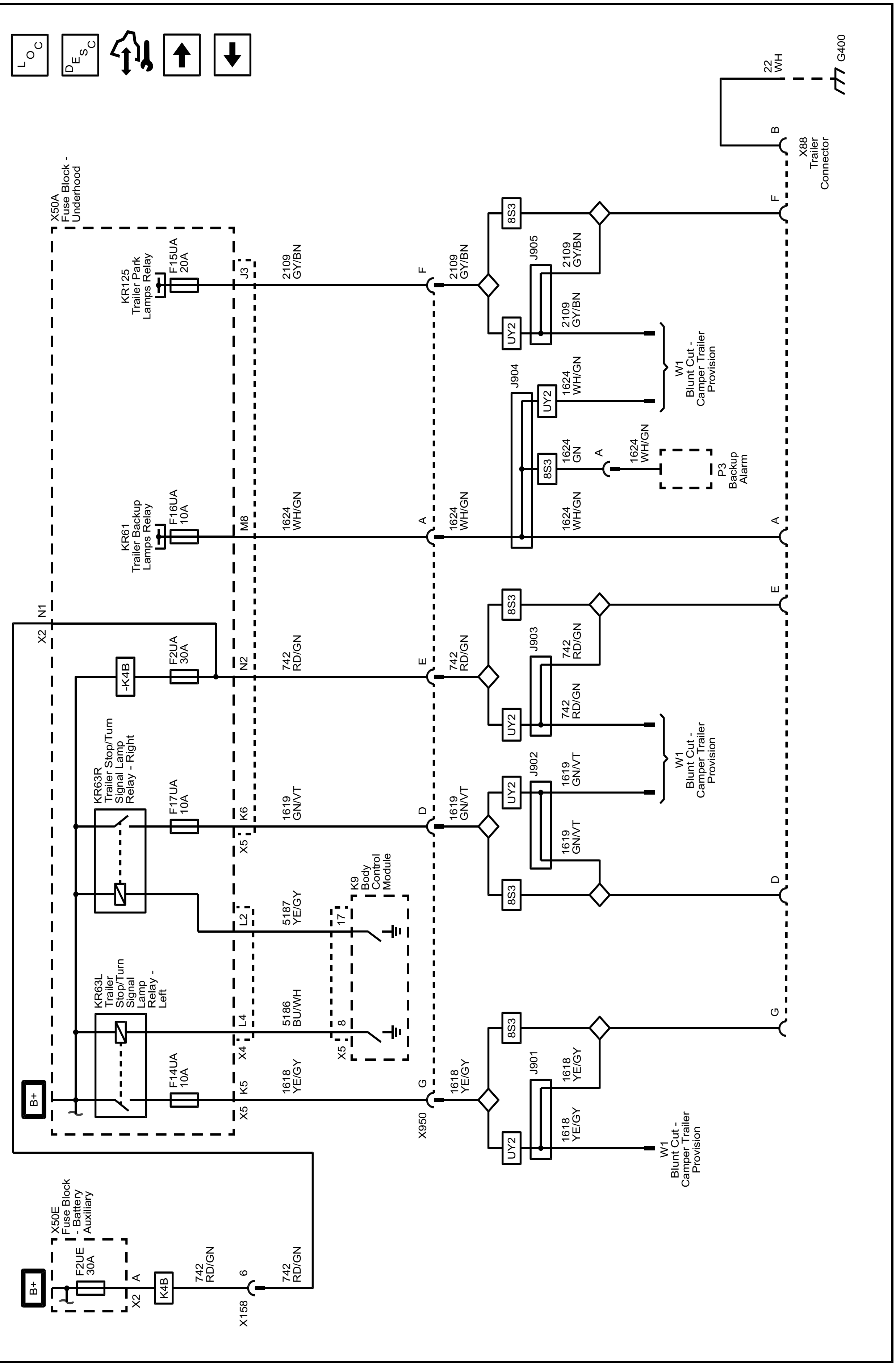

X50A
Fuse Block - Underhood
KR59 Stop Lamp Relay
F38UA 10A
X5
M1
1054
VT/GY
X51R
Fuse Block - Instrument Panel Right
KR112 Cargo Lamp Relay
F10DR 15A
X2
11
-E29
1430
WH/VT
X61A
Junction Block - Instrument Panel
X5
4
X1
17
1430
WH/VT
DPN/DQS
-DPN/DQS
J302
1430
WH/VT
X138
36
1430
WH/VT
X400
4
1
6
1750
BK
G400

Trailer Connector/Provision Schematics (Trailer Connector Pins: A, B, D, E, F, G (Z82 without 8S3 or UY2))

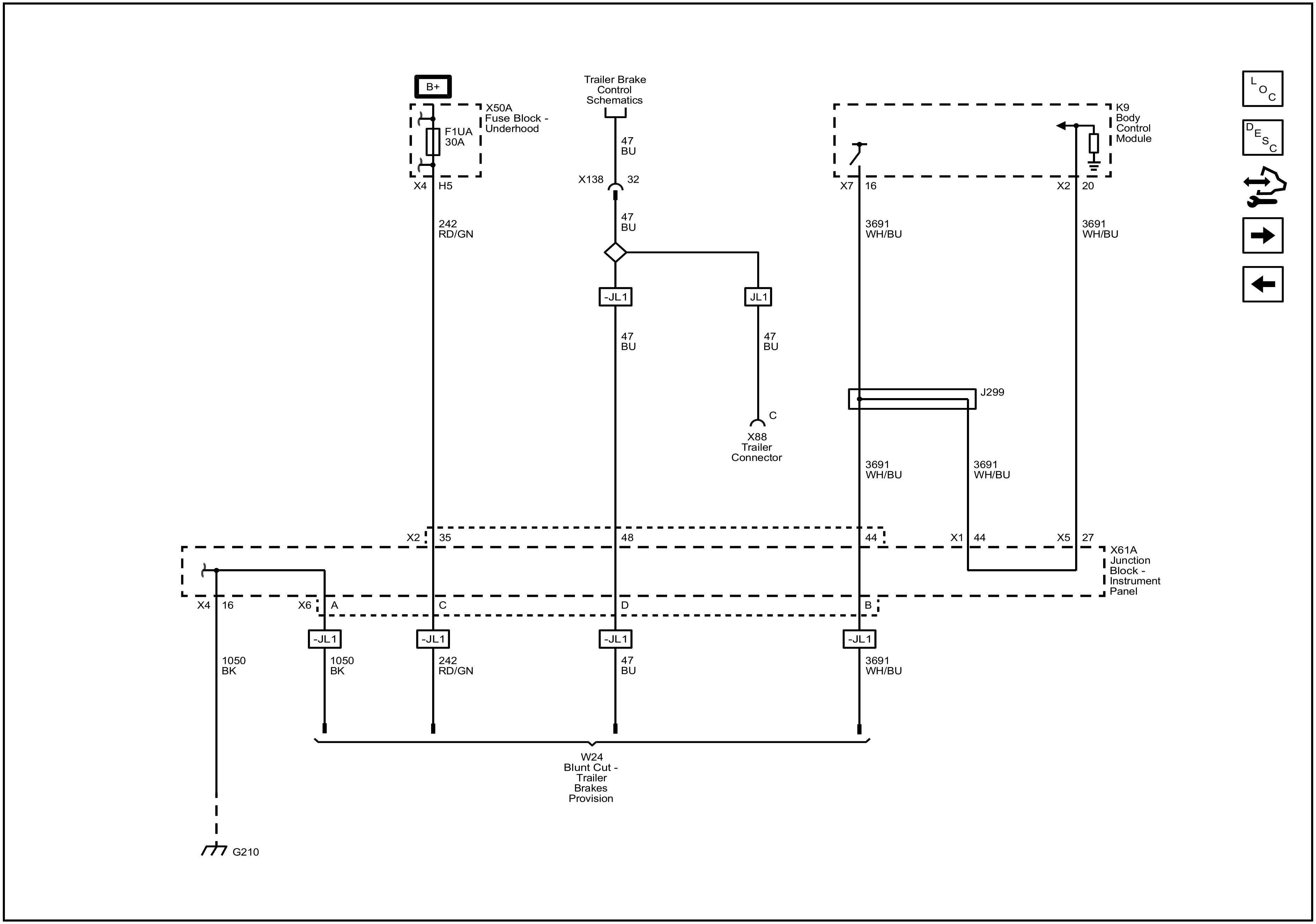


B+
X50E
Fuse Block
- Battery
Auxiliary
F2UE
30A
X2
A
K4B
742
RD/GN
X158
6
742
RD/GN
B+
X2
N1
X50A
Fuse Block -
Underhood
KR63L
Trailer
Stop/Turn
Signal
Lamp
Relay -
Left
KR63R
Trailer Stop/Turn
Signal Lamp
Relay - Right
-K4B
KR61
Trailer Backup
Lamps Relay
KR125
Trailer Park
Lamps Relay
F14UA
10A
F17UA
10A
F2UA
30A
F16UA
10A
F15UA
20A
X5
K5
X4
L4
L2
X5
K6
N2
M8
J3
1618
YE/GY
5186
BU/WH
5187
YE/GY
1619
GN/VT
742
RD/GN
1624
WH/GN
2109
GY/BN
X5
8
17
K9
Body
Control
Module
G
D
E
A
F
B
22
WH
X88
Trailer
Connector
G400
4693432

Trailer Connector/Provision Schematics (Trailer Connector Pins: A, B, D, E, F, G (Z82 with 8S3 or UY2))

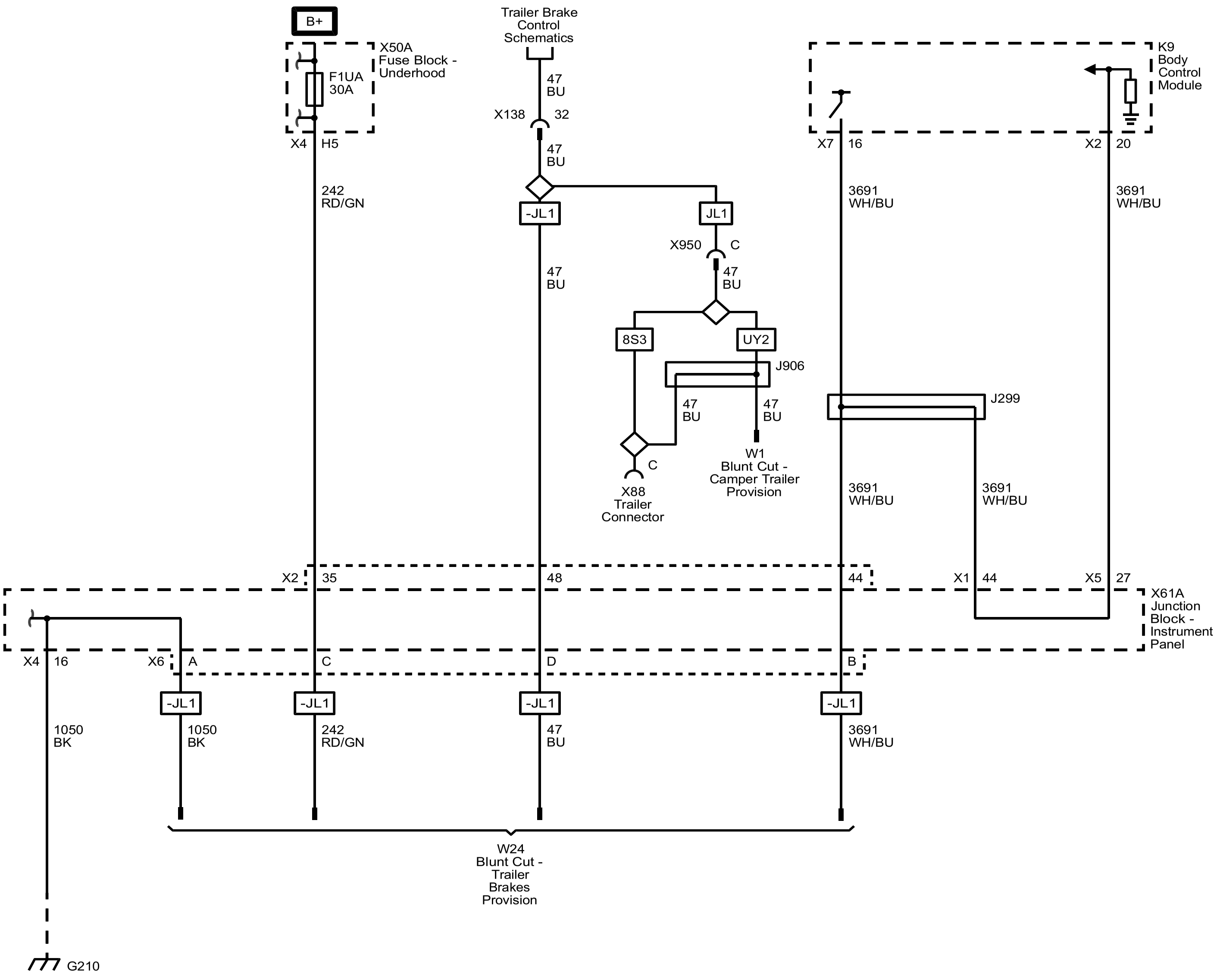

4693434
B+
X50A Fuse Block - Underhood
KR125 Trailer Park Lamps Relay
F15UA 20A
J3
2109 GY/BN
KR61 Trailer Backup Lamps Relay
F16UA 10A
M8
1624 WH/GN
X2 N1
-K4B
F2UA 30A
N2
742 RD/GN
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F17UA 10A
K6
X5
1619 GN/VT
L2
5187 YE/GY
K9 Body Control Module
17
8
X5
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
L4
X4
5186 BU/WH
F14UA 10A
K5
X5
1618 YE/GY
X950
F
A
E
D
G
8S3
UY2
J905
J904
J903
J902
J901
W1 Blunt Cut - Camper Trailer Provision
A
P3 Backup Alarm
X88 Trailer Connector
B
22 WH
G400
X50E Fuse Block - Battery Auxiliary
B+
F2UE 30A
X2 A
K4B
742 RD/GN
6
X158

Trailer Connector/Provision Schematics (Trailer Connector Pin: C (Z82 without 8S3, E29 or UY2))

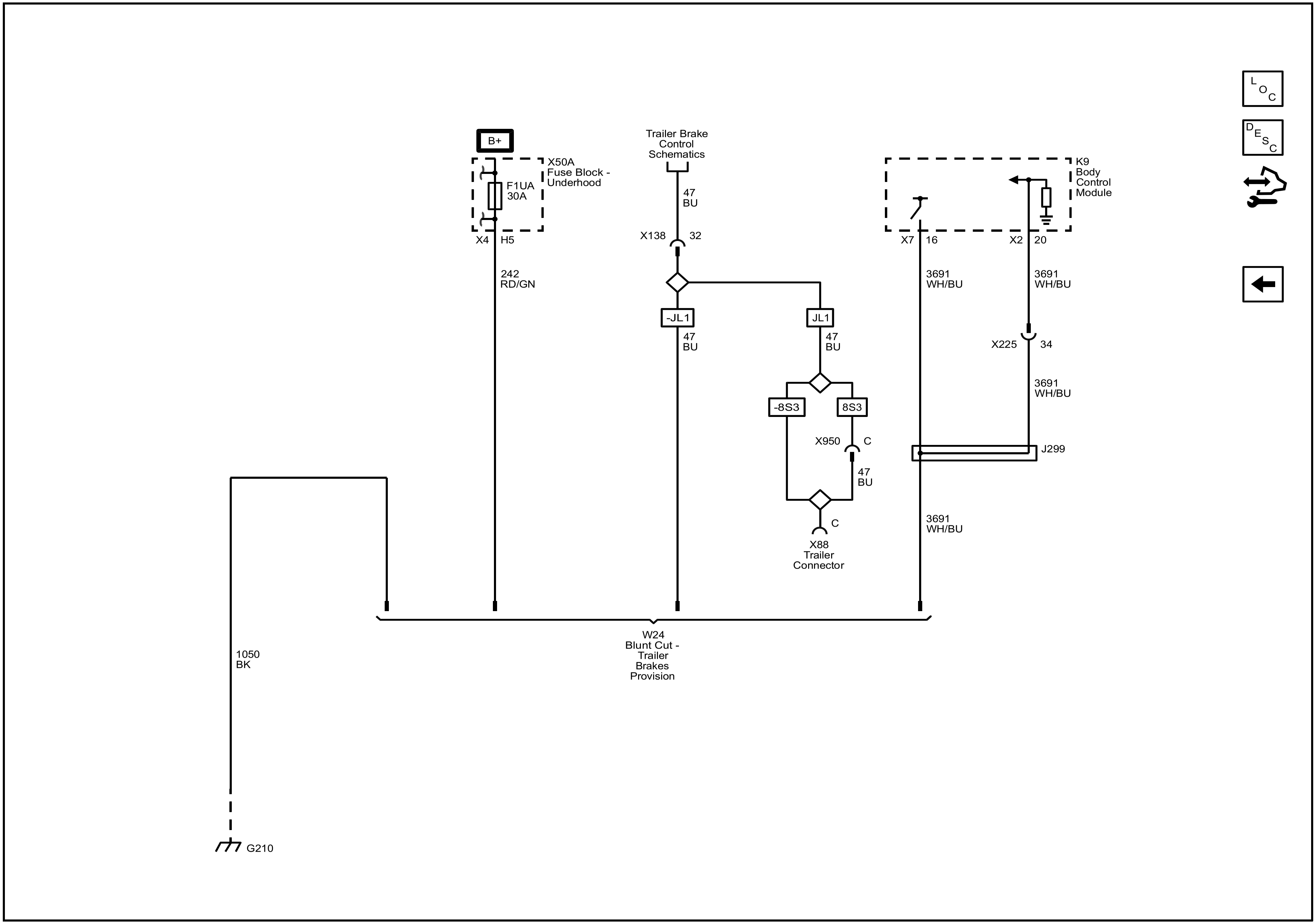

B+
X50A
Fuse Block -
Underhood
F1UA
30A
X4 H5
242
RD/GN
Trailer Brake
Control
Schematics
47
BU
X138 32
47
BU
-JL1
JL1
47
BU
47
BU
C
X88
Trailer
Connector
K9
Body
Control
Module
X7 16
X2 20
3691
WH/BU
3691
WH/BU
J299
3691
WH/BU
3691
WH/BU
X2 35
48
44
X1 44
X5 27
X61A
Junction
Block -
Instrument
Panel
X4 16
X6 A
C
D
B
-JL1
-JL1
-JL1
-JL1
1050
BK
1050
BK
242
RD/GN
47
BU
3691
WH/BU
W24
Blunt Cut -
Trailer
Brakes
Provision
G210

4693439

Trailer Connector/Provision Schematics (Trailer Connector Pin: C (Z82 with 8S3 or UY2 except E29))


B+
X50A
Fuse Block -
Underhood
F1UA
30A
X4
H5
242
RD/GN
Trailer Brake
Control
Schematics
47
BU
X138
32
47
BU
-JL1
JL1
X950
C
47
BU
8S3
UY2
J906
47
BU
47
BU
W1
Blunt Cut -
Camper Trailer
Provision
C
X88
Trailer
Connector
K9
Body
Control
Module
X7
16
X2
20
3691
WH/BU
3691
WH/BU
J299
3691
WH/BU
3691
WH/BU
X2
35
48
44
X1
44
X5
27
X61A
Junction
Block -
Instrument
Panel
X4
16
X6
A
C
D
B
-JL1
-JL1
-JL1
-JL1
1050
BK
1050
BK
242
RD/GN
47
BU
3691
WH/BU
W24
Blunt Cut -
Trailer
Brakes
Provision
G210
4693442

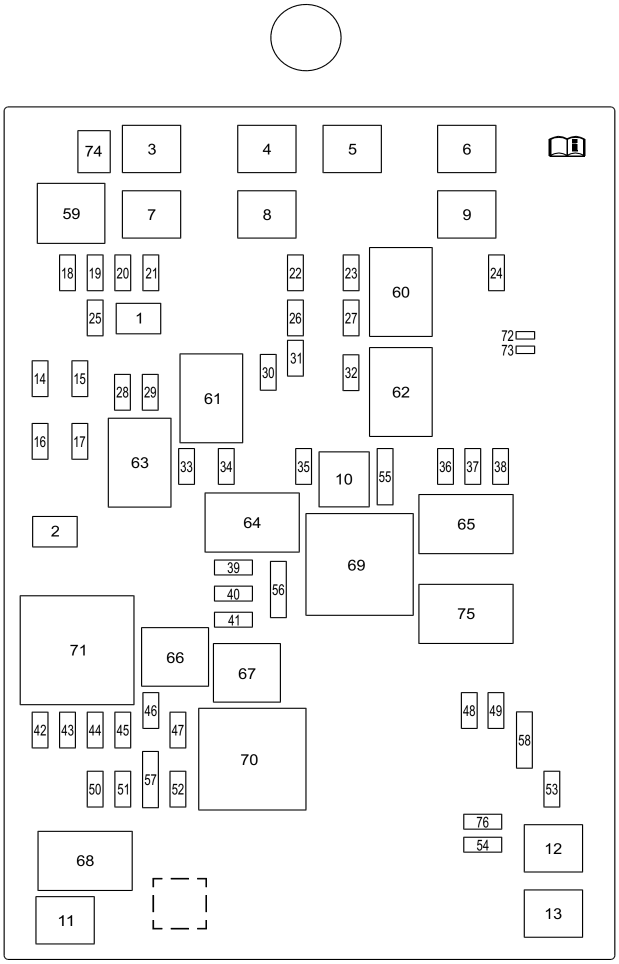
Trailer Connector/Provision Schematics (Trailer Connector Pin: C (Z82 with E29))


B+
X50A
Fuse Block -
Underhood
F1UA
30A
X4
H5
242
RD/GN
Trailer Brake
Control
Schematics
47
BU
X138
32
-JL1
JL1
-8S3
8S3
X950
C
X88
Trailer
Connector
K9
Body
Control
Module
X7
16
X2
20
3691
WH/BU
X225
34
J299
W24
Blunt Cut -
Trailer
Brakes
Provision
1050
BK
G210
4693449

Component Locator

Electrical Center Identification Views

X50A Fuse Block - Underhood Label (except HP5/L5P)


74
3
4
5
6
59
7
8
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18
19
20
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22
23
60
24
25
1
26
27
72
73
14
15
28
29
61
30
31
32
62
16
17
63
33
34
35
10
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76
54
12
68
11
13

MICRO J-CASE FUSES
1. TRLR BRK (30A)
2. TRLR BATT (30A)
74. ELC RNG BDS (30A)

J-CASE FUSES
3. ABS PUMP (60A)
4. I/P BEC 1 (60A)
5. MSB PASS (40A)
6. 4WD TREC (30A)
7. ELEC PRK BRK (40A)
8. I/P BEC 2 (60A)
9. MSB DRVR (40A)
10. REAR DEFOG (30A)
11. STRTR (40A)
12. COOL FAN 1 (40A)
13. COOL FAN 2 (40A)

MINI FUSES 2 PIN
14. TRLR STOP TRN LT (10A)
15. TRLR PRK LAMP (20A)
16. REV LAMP (10A)
17. TRLR STOP TRN RT (10A)

MICRO FUSES 2 PIN
18. FUEL PUMP (20A)
19. ICCM (10A)
20. ESC ELC EXH (30A)
21. FPPM (30A)
22. UPFTR SW1 (5A)
23. UPFTR 2 (30A)
24. FRT/WPR (25A)
25. ABS VLV (25A)
26. UPFTR SW2 (5A)
27. UPFTR SW3 (5A)
28. PRK LAMP RT (15A)
29. PRK LAMP LT (15A)
30. UPFTR 3 (30A)
31. UPFTR SW4 (5A)
32. UPFTR 4 (30A)
33. BCK UP LAMP (10A)
34. ECM IGN (15A)
35. A/C CLTCH (10A)
36. HTD MIR (15A)
37. UPFTR 1 (30A)
38. CHMSL (10A)
39. MISC IGN (15A)
40. TRANS IGN (15A)
41. FUEL PUMP 2 (20A)
42. COOL FAN CLTCH (10A)
43. ENG (15A)
44. INJ A ODD (20A)
45. INJ B EVEN (20A)
46. O2 SNSR B (15A)
47. THROT CONT (15A)
48. HORN (15A)
49. FOG LAMP (15A)
50. O2 SNSR A (15A)
51. ECM (30A)
52. INT HTR (10A)
53. ACCY PWR MDL/TPIM PUMP (10A)
54. FRT WASH (15A)
76. FUEL PUMP PRIME (5A)

MICRO FUSES 3 PIN
55. AHA/AHA RVC (5A/5A)
56. A/C CMPRSR MDL/BATT PCK (10A/10A)
57. TCM / ECM (15A/15A)
58. HDLP RT / LT (10A/10A)

MICRO RELAYS
59. FUEL PUMP
60. UPFTR 2
61. UPFTR 2
62. UPFTR 2
63. TRLR PRK LAMPS
64. RUN/CRNK
65. UPFTR 1
66. FUEL PUMP 2
67. A/C CNTRL
68. STRTR
75. FUEL PUMP PRIME

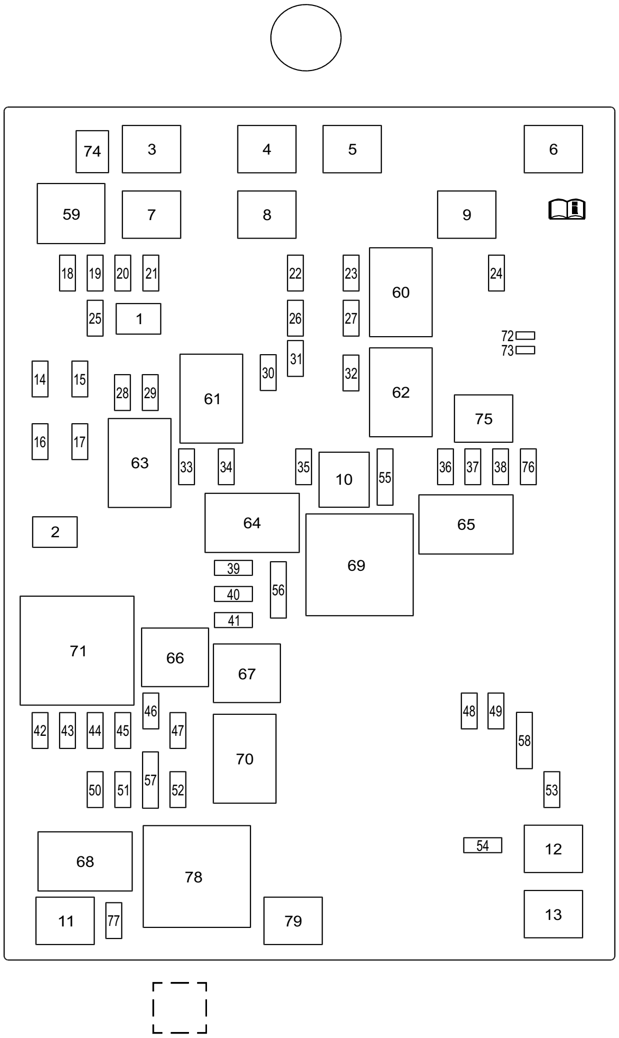
MINI RELAYS
69. REAR DEFOG
70. ECM

SOLID STATE RELAY
71. COOL FAN CLTCH

TEST POINTS
72. CKT 95
73. CKT 92

4629955

X50A Fuse Block - Underhood Label (HP5)


74
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59
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18
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60
24
25
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72
73
31
30
32
14
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29
61
62
75
16
17
63
33
34
35
10
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76
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52
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68
78
11
77
79
13

MICRO J-CASE FUSES

1. TRLR BRK (30A)
2. TRLR BATT (30A)
74. ELC RNG BDS (30A)

J-CASE FUSES

3. ABS PUMP (60A)
4. I/P BEC 1 (60A)
5. MSB PASS (40A)
6. 4WD TREC (30A)
7. ELEC PRK BRK (40A)
8. I/P BEC 2 (60A)
9. MSB DRVR (40A)
10. REAR DEFOG (30A)
11. STRTR (40A)
12. COOL FAN 1 (40A)
13. COOL FAN 2 (40A)
79. VACUUM PUMP (30A)

MINI FUSES 2 PIN

14. TRLR STOP TRN LT (10A)
15. TRLR PRK LAMP (20A)
16. REV LAMP (10A)
17. TRLR STOP TRN RT (10A)

MICRO FUSES 2 PIN

18. FUEL PUMP (20A)
19. ICCM (10A)
20. ESC ELC EXH (30A)
21. FPPM (30A)
22. UPFTR SW1 (5A)
23. UPFTR 2 (30A)
24. FRT/WPR (25A)
25. ABS VLV (25A)
26. UPFTR SW2 (5A)
27. UPFTR SW3 (5A)
28. PRK LAMP RT (15A)
29. PRK LAMP LT (15A)
30. UPFTR 3 (30A)
31. UPFTR SW4 (5A)
32. UPFTR 4 (30A)
33. BCK UP LAMP (10A)
34. ECM IGN (15A)
35. A/C CLTCH (10A)
36. HTD MIR (15A)
37. UPFTR 1 (30A)
38. CHMSL (10A)
39. MISC IGN (15A)
40. TRANS IGN (15A)
41. FUEL PUMP 2 (20A)
42. COOL FAN CLTCH (10A)
43. ENG (15A)
44. INJ A ODD (20A)
45. INJ B EVEN (20A)
46. O2 SNSR B (15A)
47. THROT CONT (15A)
48. HORN (15A)
49. FOG LAMP (15A)
50. O2 SNSR A (15A)
51. ECM (30A)
52. INT HTR (10A)
53. ACCY PWR MDL/TPIM PUMP (10A)
54. FRT WASH (15A)
76. MGU CLNT MTR (10A)
77. CABIN PMP MTR (10A)

MICRO FUSES 3 PIN

55. AHA/AHA RVC (5A/5A)
56. A/C CMPRSR MDL/BATT PCK (10A/10A)
57. TCM / ECM (15A/15A)
58. HDLP RT / LT (10A/10A)

MICRO RELAYS

59. FUEL PUMP
60. UPFTR 2
61. UPFTR 3
62. UPFTR 4
63. TRLR PRK LAMPS
64. RUN/CRNK
65. UPFTR 1
66. FUEL PUMP 2
67. A/C CNTRL
68. STRTR
70. ECM
75. MGU CLNT MTR

MINI RELAYS

69. REAR DEFOG
78. VACUUM PUMP SW

SOLID STATE RELAY

71. VACUUM PUMP

TEST POINTS

72. CKT 95
73. CKT 92

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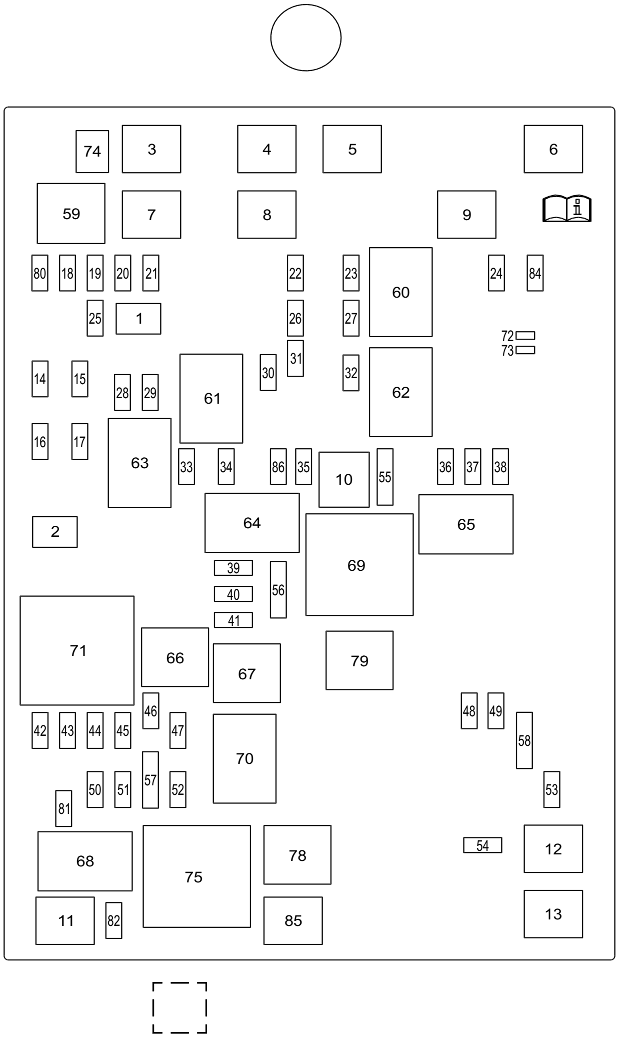
X50A Fuse Block - Underhood Label (L5P)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MICRO J-CASE FUSES

1. TRLR BRK (30A)
2. TRLR BATT (30A)
74. ELC RNG BDS (30A)

J-CASE FUSES

3. ABS PUMP (60A)
4. I/P BEC 1 (60A)
5. MSB PASS (40A)
6. 4WD TREC (30A)
7. ELEC PRK BRK (40A)
8. I/P BEC 2 (60A)
9. MSB DRVR (40A)
10. REAR DEFOG (30A)
11. STRTR (40A)
12. COOL FAN 1 (40A)
13. COOL FAN 2 (40A)
85. FUEL HEATER (50A)

MINI FUSES 2 PIN

14. TRLR STOP TRN LT (10A)
15. TRLR PRK LAMP (20A)
16. REV LAMP (10A)
17. TRLR STOP TRN RT (10A)

MICRO FUSES 2 PIN

18. FUEL PUMP (20A)
19. ICCM (10A)
20. ESC ELC EXH (30A)
21. FPPM (30A)
22. UPFTR SW1 (5A)
23. UPFTR 2 (30A)
24. FRT/WPR (25A)
25. ABS VLV (25A)
26. UPFTR SW2 (5A)
27. UPFTR SW3 (5A)
28. PRK LAMP RT (15A)
29. PRK LAMP LT (15A)
30. UPFTR 3 (30A)
31. UPFTR SW4 (5A)
32. UPFTR 4 (30A)
33. BCK UP LAMP (10A)
34. ECM IGN (15A)
35. A/C CLTCH (10A)
36. HTD MIR (15A)
37. UPFTR 1 (30A)
38. CHMSL (10A)
39. MISC IGN (15A)
40. TRANS IGN (15A)
41. FUEL PUMP 2 (20A)
42. COOL FAN CLTCH (10A)
43. ENG (15A)
44. INJ A ODD (20A)
45. INJ B EVEN (20A)
46. AFTERBOIL (10A)
47. THROT CONT (15A)
48. HORN (15A)
49. FOG LAMP (15A)
50. O2 SNSR A (15A)
51. ECM (30A)
52. INT HTR (10A)
53. POLICE UPFTR (10A)
54. FRT WASH (15A)
80. LVL EXH SOL (15A)
81. DEF HEATER (25A)
82. FUEL HEATER (30)
84. TIM (25A)
86. EURO TRLR R/C (10A)

MICRO FUSES 3 PIN

55. A/C CMPRSR MDL / BATT RVC (5A/5A)
56. SCRPM / SEN ENB (10A/10A)
57. TCM / ECM (15A/15A)
58. HDLP RT / LT (10A/10A)

MICRO RELAYS

59. FUEL PUMP
60. UPFTR 2
61. UPFTR 3
62. UPFTR 4
63. TRLR PRK LAMPS
64. RUN/CRNK
65. UPFTR 1
66. FUEL PUMP 2
67. A/C CNTRL
68. STRTR
78. DEF HEATER
79. PT SENSOR

MINI RELAYS

69. REAR DEFOG
70. ECM

SOLID STATE RELAY

71. COOL FAN CLTCH

ISO HC RELAY

75. FUEL HEATER

TEST POINTS

72. CKT 95
73. CKT 92

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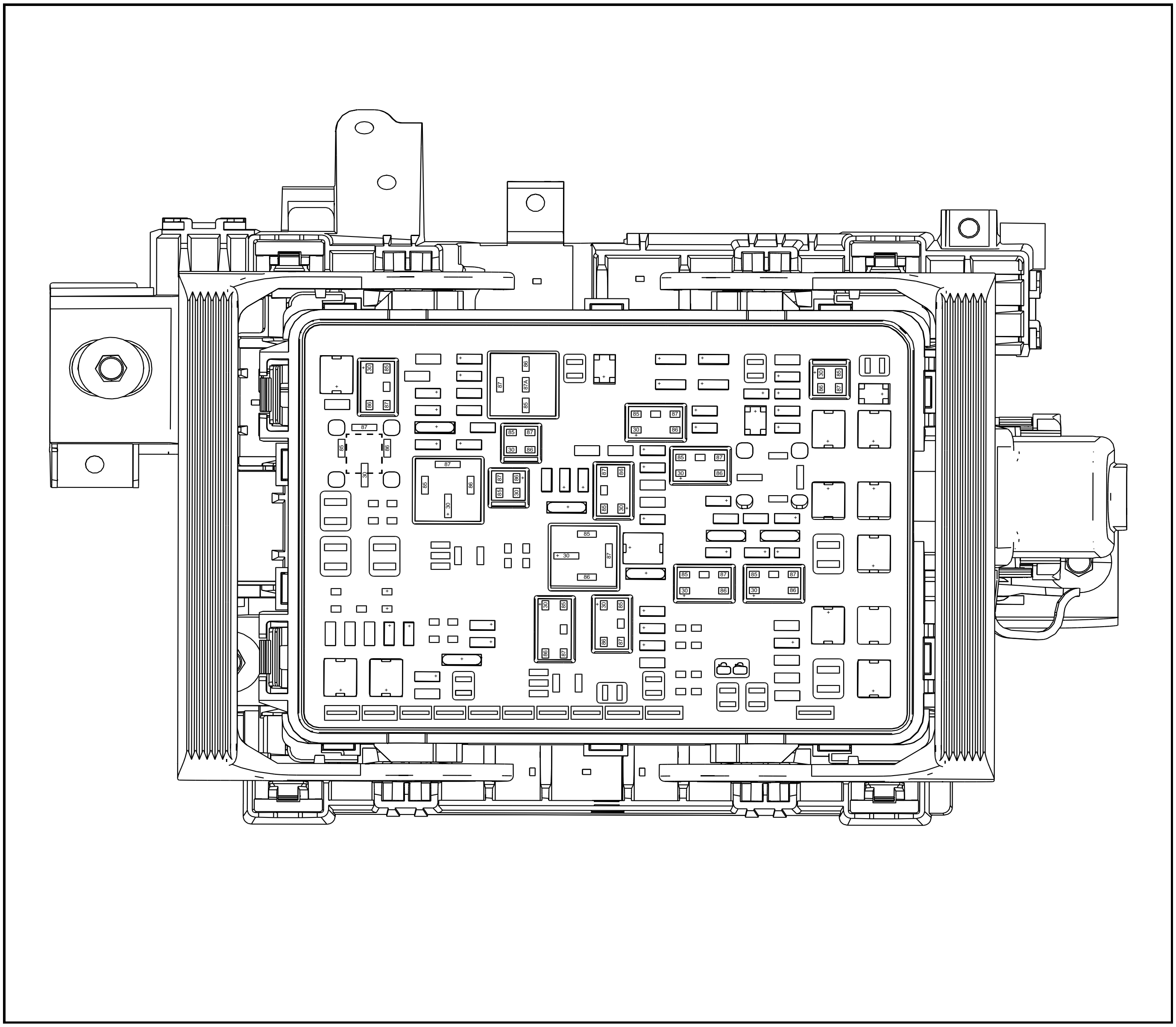
X50A Fuse Block - Underhood Top View (except HP5/L5P)



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Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Micro J-Case Fuses				
1	TRLR BRK	F1UA	30A	• W24 Blunt Cut - Trailer Brakes Provision (E29) • X61A Junction Clock-Instrument Panel (-E29) • K133 Trailer Brake Power Control Module (JL1)
2	TRLR BATT	F2UA	30A	• X88 Trailer Connector (Z82 without K4B)
74	ELC RNG BDS	F74UA	30A	• K4 Assist Step Control Module (BRS)
J-Case Fuses				
3	ABS PUMP	F3UA	60A	• K17 Electronic Brake Control Module
4	I/P BEC 1	F4UA	60A	• X51L Fuse Block - Instrument Panel Left
5	MSB PASS	F5UA	40A	• Not Used
6	4WD TREC	F6UA	30A	• A16 Transfer Case Motor (NQH) • K69 Transfer Case Control Module (NQF/NQH)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
7	ELEC PRK BRK	F7UA	40A	• Not Used
8	I/P BEC 2	F8UA	60A	• X51L Fuse Block - Instrument Panel Left
9	MSB DRVR	F9UA	40A	• Not Used
10	REAR DEFOG	F10UA	30A	• E18 Rear Defogger Grid (C49)
11	STRTR	F11UA	40A	• KR27 Starter Relay
12	COOL FAN 1	F12UA	40A	• G10L Cooling Fan Motor-Left
13	COOL FAN 2	F13UA	40A	• G10R Cooling Fan Motor-Right
Mini Fuses 2 Pin				
14	TRLR STOP TRN LT	F14UA	10A	• X88 Trailer Connector (Z82)
15	TRLR PRK LAMP	F15UA	20A	• X88 Trailer Connector (Z82)
16	REV LAMP	F16UA	10A	• X88 Trailer Connector (Z82)
17	TRLR STOP TRN RT	F17UA	10A	• X88 Trailer Connector (Z82)
Micro Fuses 2 Pin				
18	FUEL PUMP	F18UA	20A	• KR23A Fuel Pump Relay (LC8)
19	ICCM	F19UA	10A	• K38 Chassis Control Module (JL1)
20	ESC ELC EXH	F20UA	30A	• K19 Suspension Control Module (1500)
21	FPPM	F21UA	30A	• K38 Chassis Control Module (XFE) • K111 Fuel Pump Driver Control Module (LV1/LV3/L83/L86)
22	UPFTR SW1	F22UA	5A	• KR161A Configurable Provision Relay 1 (9L7) • KR161B Configurable Provision Relay 2 (9L7)
23	UPFTR 2	F23UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
24	FRT/WPR	F24UA	25A	• KR12B Windshield Wiper Relay • KR12C Windshield Wiper Speed Control Relay
25	ABS VLV	F25UA	25A	• K17 electronic Brake Control Module
26	UPFTR SW2	F26UA	5A	• KR161A Configurable Provision Relay 1 (9L7) • KR161B Configurable Provision Relay 2 (9L7)
27	UPFTR SW3	F27UA	5A	• KR161C Configurable Provision Relay 3 • (9L7),KR161D Configurable Provision Relay 4

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
28	PRK LAMP RT	F28UA	15A	• E4T Park/Turn Signal Lamp - Right Upper (Chevrolet/X88) • E4R Park/Turn Signal Lamp - Right Lower (Chevrolet/X88) • E4N Park/Turn Signal Lamp - Left (GMC/Z88) • K166L Multifunction LED Control Module - Left Headlamp (GMC/Z88 with SLT) • E2RM Side Marker Lamp - Right Middle (DPN or DQS) • E2A Marker Lamp - Endgate (DRW) • E3RR Rear Fender Clearance Lamp - Right Rear (DRW) • E3RF Rear Fender Clearance Lamp - Right Front (DRW) • E5AH Tail/Stop and Turn Signal Lamp - Right Upper (without ZW9) • E5V Tail/Stop and Turn Signal Lamp - Right Lower (without ZW9) • E2RR Side Marker Lamp - Right Rear (Z88 without ZW9) • E5T Tail/Stop and Turn Signal Lamp - Right (ZW9)
29	PRK LAMP LT	F29UA	15A	• E4S Park/Turn Signal Lamp - Left Upper (Chevrolet/X88) • E4Q Park/Turn Signal Lamp - Left Lower (Chevrolet/X88) • E3LF Rear Fender Clearance Lamp-Left Front (DRW) • E3A Roof Clearance Lamp-Left front Outer (U01) • E3C Roof Clearance Lamp-Front Middle (U01) • E3E Clearance Lamp-Right Front Outer (U01) • E3LR Rear Fender Clearance Lamp-Left Rear (DRW) • E4N Park/Turn Signal Lamp - Left (GMC/Z88) • K166L Multifunction LED Control Module - Left Headlamp (GMC/Z88 with SLT) • E2LM Side Marker Lamp - Left Middle (DPN/DQS) • E5AG Tail/Stop and Turn Signal Lamp - Left Upper (without ZW9) • E5U Tail/Stop and Turn Signal Lamp - Left Lower (without ZW9) • E2LR Side Marker Lamp - Left Rear (Z88 without ZW9) • E5S Tail/Stop and Turn Signal Lamp - Left (ZW9)
30	UPFTR 3	F30UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
31	UPFTR SW4	F31UA	5A	• KR161C Configurable Provision Relay 3 (9L7) • KR161D Configurable Provision Relay 4 (9L7)
32	UPFTR 4	F32UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
33	BCK UP LAMP	F33UA	10A	• A10 Inside Rearview Mirror • B87 Rearview Camera (UVC without E29) • E5A Backup Lamp - Left • E5B Backup Lamp - Right

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
34	ECM IGN	F34UA	15A	• K20 Engine Control Module • K38 Chassis Control Module • K111 Fuel Pump Driver Control Module (1500)
35	A/C CLTCH	F35UA	10A	• KR29 A/C Compressor Clutch Relay
36	HTD MIR	F36UA	15A	• E17D Outside Rearview Mirror Glass-Driver (DL8/DL3/DPN/DQS) • E17P Outside Rearview Mirror Glass-Passenger (DL8/DL3/DPN/DQS)
37	UPFTR 1	F37UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
38	CHMSL	F38UA	10A	• E6 Center High Mounted Stop Lamp
39	MISC IGN	F39UA	10A	• K166L Multifunction LED Control Module − Left Headlamp (1500 with Z88 without T4F) • K166R Multifunction LED Control Module − Right Headlamp (1500 with Z88 without T4F)
40	TRANS IGN	F40UA	15A	• T12 Automatic Transmission Assembly (MYC/MYD) • M26 Front Axle Engagement Actuator • K71 Transmission Control Module
41	FUEL PUMP 2	F41UA	20A	• KR23B Fuel Pump Relay - Secondary (L96)
42	COOL FAN CLTCH	F42UA	10A	• Not Used
43	ENG	F43UA	15A	• B75B Mass Air Flow/Intake Air Temperature Sensor (L96/LC8) • B75C Multi Function Intake Air Sensor (1500) • B198 Fuel Composition Sensor (1500)
44	INJ A ODD	F44UA	20A	• K20 Engine Control Module (1500) • T8A Ignition Coil 1 • T8C Ignition Coil 3 • T8E Ignition Coil 5 • T8G Ignition Coil 7 (L83/L86/L96/LC8) • K119 CNG Control Module (LC8)
45	INJ B EVEN	F45UA	20A	• K20 Engine Control Module (1500) • T8B Ignition Coil 2 • T8D Ignition Coil 4 • T8F Ignition Coil 6 • T8H Ignition Coil 8 (L83/L86/L96/LC8) • K119 CNG Control Module (LC8)
46	O2 SNSR B	F46UA	15A	• B52D Heated Oxygen Sensor Bank 1 Sensor 2 • B52F Heated Oxygen Sensor-Bank 2 Sensor 2
47	THROT CONT	F47UA	15A	• K20 Engine Control Module (L96/LC8)
48	HORN	F48UA	15A	• P12 Horn
49	FOG LAMP	F49UA	15A	• E29LF Fog Lamp-Left Front • E29RF Fog Lamp-Right Front
50	O2 SNSR A	F50UA	15A	• B52C Heated Oxygen Sensor Bank 1 Sensor 1 • B52E Heated Oxygen Sensor-Bank 2 Sensor 1 • Q12 Evaporative Emission Purge Solenoid Valve • Q43 Valve Lifter Oil Manifold Assembly (1500) • Q44 Engine Oil Pressure Control Solenoid Valve (1500)
51	ECM	F51UA	30A	• K20 Engine Control Module (without L96/LC8)

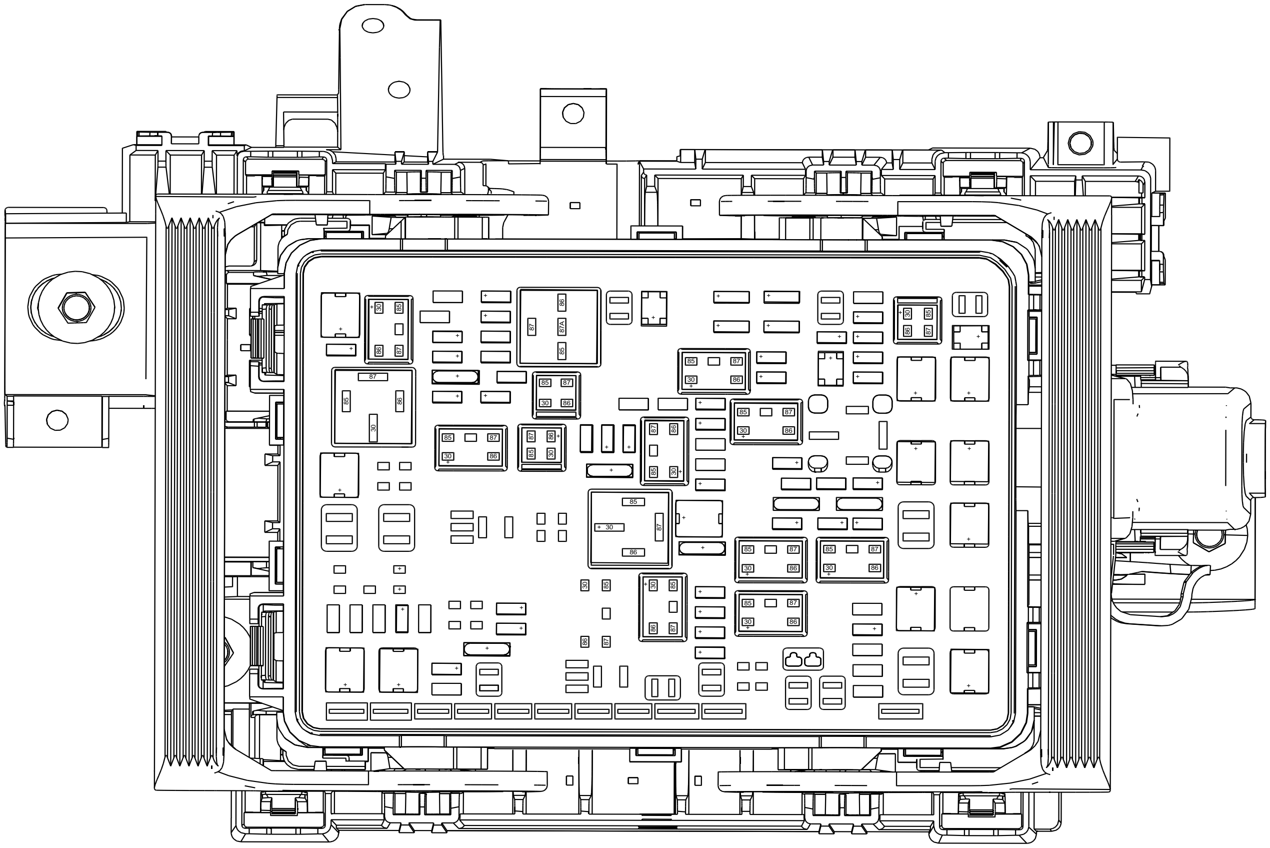
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
52	INT HTR	F52UA	10A	• KR81 Auxiliary Battery Relay 1 (K4B/K4D)
53	ACCY PWR MDL/ TPIM PUMP	F53UA	10A	• Not Used
54	FRT WASH	F54UA	15A	• G24 Windshield Washer Pump
76	FUEL PUMP PRIME	F76UA	5A	• K20 Engine Control Module (except L96/LC8)
Micro Fuses 3 Pin				
55	AHA/AHA RVC	F55UA	5A	• K9 Body Control Module • K43 Power Steering Control Module (NV8)
56	A/C CMPRSR MDL/BATT PCK	F56UA	10A	• —
57	TCM / ECM	F57UA	15A	• K20 Engine Control Module • Q13 Evaporative Emission Vent Solenoid Valve • T12 Automatic Transmission Assembly (MYC/MYD) • K71 Transmission Control Module (M5U/MW7)
58	HDLP RT / LT	F58UA	10A	• E4E Headlamp-Left High Beam (X88) • E4F Headlamp-Right High Beam (X88) • K81L Headlamp High Beam Control Module - Left (Z88) • K81R Headlamp High Beam Control Module - Right (Z88)
Micro Relays				
59	FUEL PUMP	KR23A Fuel Pump Relay	—	• KR160 Fuel Pump Disable Relay (LC8)
60	UPFTR 2	KR161B Configurable Provision Relay 2	—	• F23UA (9L7)
61	UPFTR 3	KR161C Configurable Provision Relay 3	—	• F30UA (9L7)
62	UPFTR 4	KR161D Configurable Provision Relay 4	—	• F32UA (9L7)
63	TRLR PRK LAMPS	KR125 Trailer Park Lamps Relay	—	• F15UA • F28UA • F29UA • K9 Body Control Module
64	RUN/CRNK	KR73 Ignition Main relay	—	• F26UA (9L7) • F31UA (9L7) • F34UA • F39UA • F40UA • F41UA (2500/3500) • F56UA
65	UPFTR 1	KR161A Configurable Provision Relay 1	—	• F37UA (9L7)
66	FUEL PUMP 2	KR23B Fuel Pump Relay - Secondary	—	• G12B Fuel Pump - Secondary (L96 with N2N)
67	A/C CNTRL	KR29 A/C Compressor Clutch Relay	—	• Q2 A/C Compressor Clutch • K20 Engine Control Module
68	STRTR	KR27 Starter Relay	—	• M64 Starter Motor

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
70	ECM	KR75 Engine Controls Ignition Relay	—	• F43UA • F44UA • F45UA • F46UA • F47UA • F50UA • F51UA • KR29 A/C Compressor Clutch Relay
75	FUEL PUMP PRIME	KR171 Engine Control Module Wake-Up Relay	—	• F76UA (except L96/LC8) • K20 Engine Control Module (except L96/LC8)
Mini Relays				
69	REAR DEFOG	KR5 Rear Defogger Relay	—	• F10UA • F36UA
Solid State Relays				
71	COOL FAN CLTCH	KR20F Cooling Fan Relay	—	• Not Used
Test Points				
72	CKT 95	72	—	• —
73	CKT 92	73	—	• —
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR3 Horn Relay	—	• F48UA
—	—	KR11 Windshield Washer Pump Relay	—	• F54UA
—	—	KR12B Windshield Wiper Relay	—	• KR12C Windshield Wiper Speed Control Relay
—	—	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
—	—	KR46 Front Fog Lamp Relay	—	• F49UA (T3U)
—	—	KR48 Headlamp High Beam Relay	—	• F58UA
—	—	KR59 Stop Lamp Relay	—	• F38UA
—	—	KR61 Trailer Backup Lamp Relay	—	• F16UA • F33UA
—	—	KR63L Trailer Stop/Turn Signal Lamp Relay-Left	—	• F14UA
—	—	KR63R Trailer Stop/Turn Signal Lamp Relay-Right	—	• F17UA

X50A Fuse Block - Underhood Top View (HP5)



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Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Micro J-Case Fuses				
1	TRLR BRK	F1UA	30A	• W24 Blunt Cut - Trailer Brakes Provision (E29) • X61A Junction Clock-Instrument Panel (-E29) • K133 Trailer Brake Power Control Module (JL1)
2	TRLR BATT	F2UA	30A	• X88 Trailer Connector (Z82 without K4B)
74	ELC RNG BDS	F74UA	30A	• K4 Assist Step Control Module (BRS)
J-Case Fuses				
3	ABS PUMP	F3UA	60A	• K17 Electronic Brake Control Module
4	I/P BEC 1	F4UA	60A	• X51L Fuse Block - Instrument Panel Left
5	MSB PASS	F5UA	40A	• Not Used
6	4WD TREC	F6UA	30A	• A16 Transfer Case Motor (NQH) • K69 Transfer Case Control Module (NQH)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
7	ELEC PRK BRK	F7UA	40A	• Not Used
8	I/P BEC 2	F8UA	60A	• X51L Fuse Block - Instrument Panel Left
9	MSB DRVR	F9UA	40A	• Not Used
10	REAR DEFOG	F10UA	30A	• E18 Rear Defogger Grid (C49)
11	STRTR	F11UA	40A	• KR27 Starter Relay
12	COOL FAN 1	F12UA	40A	• G10L Cooling Fan Motor-Left
13	COOL FAN 2	F13UA	40A	• G10R Cooling Fan Motor-Right
79	VACUUM PUMP	F79UA	30A	• KR73B Ignition Main Relay 2
Mini Fuses 2 Pin				
14	TRLR STOP TRN LT	F14UA	10A	• X88 Trailer Connector (Z82)
15	TRLR PRK LAMP	F15UA	20A	• X88 Trailer Connector (Z82)
16	REV LAMP	F16UA	10A	• X88 Trailer Connector (Z82)
17	TRLR STOP TRN RT	F17UA	10A	• X88 Trailer Connector (Z82)
Micro Fuses 2 Pin				
18	FUEL PUMP	F18UA	20A	• KR23A Fuel Pump Relay (N2N)
19	ICCM	F19UA	10A	• K38 Chassis Control Module (JL1)
20	ESC ELC EXH	F20UA	30A	• K19 Suspension Control Module
21	FPPM	F21UA	30A	• K38 Chassis Control Module (XFE) • K111 Fuel Pump Driver Control Module (LV1/LV3/L83/L86)
22	UPFTR SW1	F22UA	5A	• KR161A Configurable Provision Relay 1 (9L7) • KR161B Configurable Provision Relay 2 (9L7)
23	UPFTR 2	F23UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
24	FRT/WPR	F24UA	25A	• KR12B Windshield Wiper Relay • KR12C Windshield Wiper Speed Control Relay
25	ABS VLV	F25UA	25A	• K17 Electronic Brake Control Module
26	UPFTR SW2	F26UA	5A	• KR161A Configurable Provision Relay 1 (9L7) • KR161B Configurable Provision Relay 2 (9L7)
27	UPFTR SW3	F27UA	5A	• KR161C Configurable Provision Relay 3 • (9L7),KR161D Configurable Provision Relay 4

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
28	PRK LAMP RT	F28UA	15A	• E4T Park/Turn Signal Lamp - Right Upper (Chevrolet/X88) • E4R Park/Turn Signal Lamp - Right Lower (Chevrolet/X88) • E4N Park/Turn Signal Lamp - Left (GMC/Z88) • K166L Multifunction LED Control Module - Left Headlamp (GMC/Z88 with SLT) • E2RM Side Marker Lamp - Right Middle (DPN or DQS) • E2A Marker Lamp - Endgate (DRW) • E3RR Rear Fender Clearance Lamp - Right Rear (DRW) • E3RF Rear Fender Clearance Lamp - Right Front (DRW) • E5AH Tail/Stop and Turn Signal Lamp - Right Upper (without ZW9) • E5V Tail/Stop and Turn Signal Lamp - Right Lower (without ZW9) • E2RR Side Marker Lamp - Right Rear (Z88 without ZW9) • E5T Tail/Stop and Turn Signal Lamp - Right (ZW9)
29	PRK LAMP LT	F29UA	15A	• E4S Park/Turn Signal Lamp - Left Upper (Chevrolet/X88) • E4Q Park/Turn Signal Lamp - Left Lower (Chevrolet/X88) • E3LF Rear Fender Clearance Lamp-Left Front (DRW).E3A Roof Clearance Lamp-Left front Outer (U01) • E3C Roof Clearance Lamp-Front Middle (U01) • E3E Clearance Lamp-Right Front Outer (U01) • E3LR Rear Fender Clearance Lamp-Left Rear (DRW) • E4N Park/Turn Signal Lamp - Left (GMC/Z88) • K166L Multifunction LED Control Module - Left Headlamp (GMC/Z88 with SLT) • E2LM Side Marker Lamp - Left Middle (DPN/DQS) • E5AG Tail/Stop and Turn Signal Lamp - Left Upper (without ZW9) • E5U Tail/Stop and Turn Signal Lamp - Left Lower (without ZW9) • E2LR Side Marker Lamp - Left Rear (Z88 without ZW9) • E5S Tail/Stop and Turn Signal Lamp - Left (ZW9)
30	UPFTR 3	F30UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
31	UPFTR SW4	F31UA	5A	• KR161C Configurable Provision Relay 3 (9L7) • KR161D Configurable Provision Relay 4 (9L7)
32	UPFTR 4	F32UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
33	BCK UP LAMP	F33UA	10A	• A10 Inside Rearview Mirror • B87 Rearview Camera (UVC without E29) • E5A Backup Lamp - Left • E5B Backup Lamp - Right

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
34	ECM IGN	F34UA	15A	• K20 Engine Control Module • K38 Chassis Control Module • K111 Fuel Pump Driver Control Module
35	A/C CLTCH	F35UA	10A	• KR29 A/C Compressor Clutch Relay
36	HTD MIR	F36UA	15A	• E17D Outside Rearview Mirror Glass-Driver (DL8/DL3/DPN/DQS) • E17P Outside Rearview Mirror Glass-Passenger (DL8/DL3/DPN/DQS)
37	UPFTR 1	F37UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
38	CHMSL	F38UA	10A	• E6 Center High Mounted Stop Lamp
39	MISC IGN	F39UA	10A	• K166L Multifunction LED Control Module − Left Headlamp (1500 with Z88 without T4F) • K166R Multifunction LED Control Module − Right Headlamp (1500 with Z88 without T4F)
40	TRANS IGN	F40UA	15A	• K114B Hybrid/EV Powertrain Control Module 2 • M26 Front Axle Engagement Actuator • K71 Transmission Control Module
41	FUEL PUMP 2	F41UA	20A	• Not Used
42	COOL FAN CLTCH	F42UA	10A	• Not Used
43	ENG	F43UA	15A	• T12 Automatic Transmission Assembly (M5X) • B75C Multi Function Intake Air Sensor • B198 Fuel Composition Sensor
44	INJ A ODD	F44UA	20A	• K20 Engine Control Module • T8A Ignition Coil 1 • T8C Ignition Coil 3 • T8E Ignition Coil 5 • T8G Ignition Coil 7 (L8B)
45	INJ B EVEN	F45UA	20A	• K20 Engine Control Module • T8B Ignition Coil 2 • T8D Ignition Coil 4 • T8F Ignition Coil 6 • T8H Ignition Coil 8 (L8B)
46	O2 SNSR B	F46UA	15A	• B52D Heated Oxygen Sensor Bank 1 Sensor 2 • B52F Heated Oxygen Sensor-Bank 2 Sensor 2
47	THROT CONT	F47UA	15A	• M60A Active Grille Air Shutter 1 Motor Module (EDA) • M60B Active Grille Air Shutter 2 Motor Module (EDA)
48	HORN	F48UA	15A	• P12 Horn
49	FOG LAMP	F49UA	15A	• E29LF Fog Lamp-Left Front • E29RF Fog Lamp-Right Front
50	O2 SNSR A	F50UA	15A	• B52C Heated Oxygen Sensor Bank 1 Sensor 1 • B52E Heated Oxygen Sensor-Bank 2 Sensor 1 • Q12 Evaporative Emission Purge Solenoid Valve • Q43 Valve Lifter Oil Manifold Assembly • Q44 Engine Oil Pressure Control Solenoid Valve
51	ECM	F51UA	30A	• K20 Engine Control Module
52	INT HTR	F52UA	10A	• KR81 Auxiliary Battery Relay 1 (K4B/K4D)

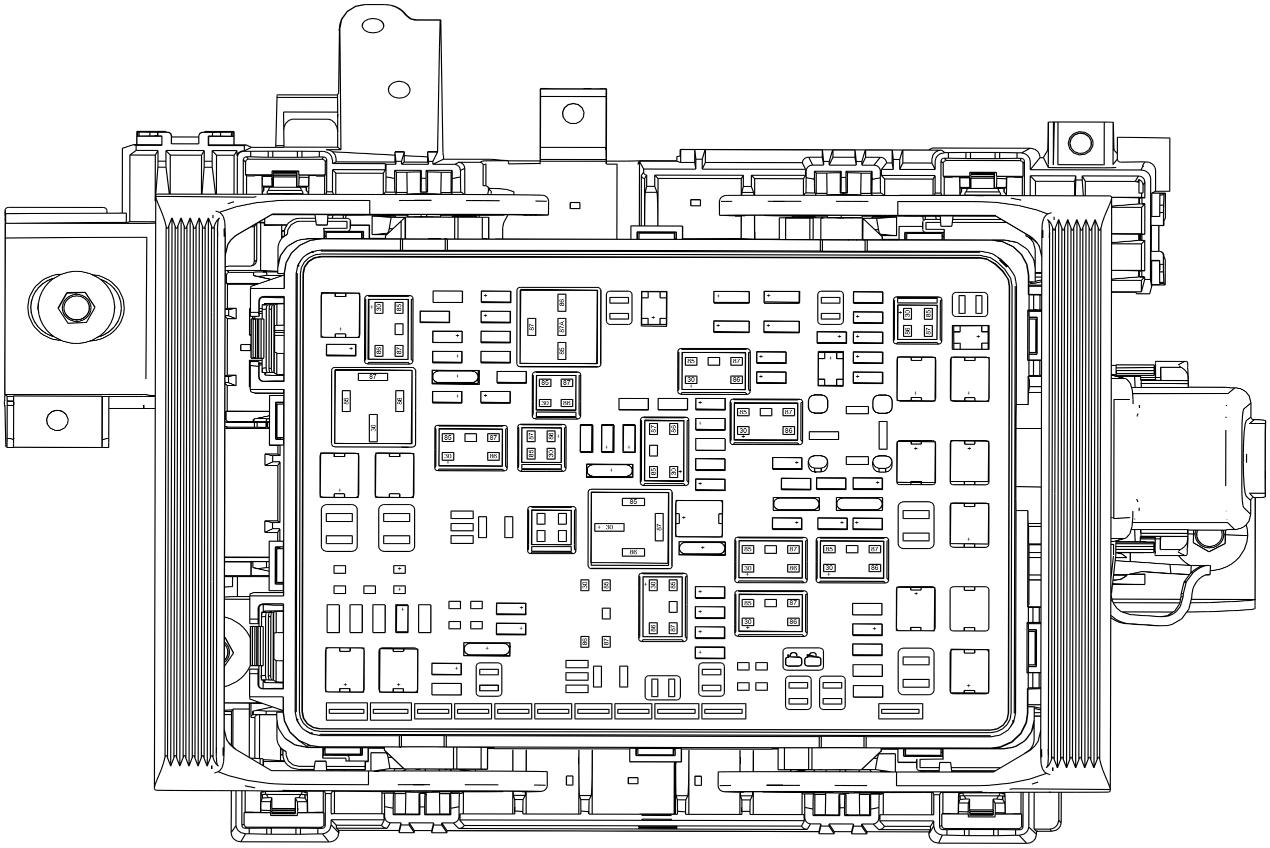
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
53	ACCY PWR MDL/ TPIM PUMP	F53UA	10A	• Not Used
54	FRT WASH	F54UA	15A	• G24 Windshield Washer Pump
76	MGU CLNT MTR	F76UA	10A	• G43 Starter/ Generator Coolant Pump
77	CABIN PMP MTR	F77UA	10A	• G17 Heater Coolant Pump
Micro Fuses 3 Pin				
55	AHA/AHA RVC	F55UA	5A	• K9 Body Control Module
56	A/C CMPRSR MDL/BATT PCK	F56UA	10A	• Not Used
57	TCM / ECM	F57UA	15A	• K20 Engine Control Module • Q13 Evaporative Emission Vent Solenoid Valve • K71 Transmission Control Module (M5U/M5X)
58	HDLP RT / LT	F58UA	10A	• E4E Headlamp-Left High Beam (X88) • E4F Headlamp-Right High Beam (X88) • K81L Headlamp High Beam Control Module - Left (Z88) • K81R Headlamp High Beam Control Module - Right (Z88)
Micro Relays				
59	FUEL PUMP	KR23A Fuel Pump Relay	—	• Not Used
60	UPFTR 2	KR161B Configurable Provision Relay 2	—	• F23UA (9L7)
61	UPFTR 3	KR161C Configurable Provision Relay 3	—	• F30UA (9L7)
62	UPFTR 4	KR161D Configurable Provision Relay 4	—	• F32UA (9L7)
63	TRLR PRK LAMPS	KR125 Trailer Park Lamps Relay	—	• F15UA • F28UA • F29UA • K9 Body Control Module
64	RUN/CRNK	KR73 Ignition Main relay	—	• F26UA (9L7) • F31UA (9L7) • F34UA • F39UA • F40UA • F56UA
65	UPFTR 1	KR161A Configurable Provision Relay 1	—	• F37UA (9L7)
66	FUEL PUMP 2	KR23B Fuel Pump Relay - Secondary	—	• Not Used
67	A/C CNTRL	KR29 A/C Compressor Clutch Relay	—	• Q2 A/C Compressor Clutch • K20 Engine Control Module
68	STRTR	KR27 Starter Relay	—	• M64 Starter Motor

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
70	ECM	KR75 Engine Controls Ignition Relay	—	• F43UA • F44UA • F45UA • F46UA • F47UA • F50UA • F51UA • KR29 A/C Compressor Clutch Relay • KR33 Auxiliary Heater Coolant Pump Relay • KR133 Starter/Generator Coolant Pump Relay
75	MGU CLNT MTR	KR133	—	• F76UA
Mini Relays				
69	REAR DEFOG	KR5 Rear Defogger Relay	—	• F10UA • F36UA
78	VACUUM PUMP SW	KR73B Ignition Main Relay 2	—	• KR14 Brake Booster Pump Motor Relay
Solid State Relays				
71	VACUUM PUMP	KR14 Brake Booster Pump Motor Relay	—	• M9 Brake Booster Pump Motor
Test Points				
72	CKT 95	72	—	• —
73	CKT 92	73	—	• —
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR3 Horn Relay	—	• F48UA
—	—	KR11 Windshield Washer Pump Relay	—	• F54UA
—	—	KR12B Windshield Wiper Relay	—	• KR12C Windshield Wiper Speed Control Relay
—	—	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
—	—	KR33 Auxiliary Heater Coolant Pump Relay	—	• F77UA
—	—	KR46 Front Fog Lamp Relay	—	• F49UA (T3U)
—	—	KR48 Headlamp High Beam Relay	—	• F58UA
—	—	KR59 Stop Lamp Relay	—	• F38UA
—	—	KR61 Trailer Backup Lamp Relay	—	• F16UA • F33UA
—	—	KR63L Trailer Stop/Turn Signal Lamp Relay-Left	—	• F14UA
—	—	KR63R Trailer Stop/Turn Signal Lamp Relay-Right	—	• F17UA

X50A Fuse Block - Underhood Top View (L5P)



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Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Micro J-Case Fuses				
1	TRLR BRK	F1UA	30A	• W24 Blunt Cut - Trailer Brakes Provision (E29) • X61A Junction Clock-Instrument Panel (-E29) • K133 Trailer Brake Power Control Module (JL1)
2	TRLR BATT	F2UA	30A	• X88 Trailer Connector (Z82 without K4B)
74	ELC RNG BDS	F74UA	30A	• K4 Assist Step Control Module (BRS)
J-Case Fuses				
3	ABS PUMP	F3UA	60A	• K17 Electronic Brake Control Module
4	I/P BEC 1	F4UA	60A	• X51L Fuse Block - Instrument Panel Left
5	MSB PASS	F5UA	40A	• Not Used
6	4WD TREC	F6UA	30A	• A16 Transfer Case Motor (NQH) • K69 Transfer Case Control Module (NQF/NQH)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
7	ELEC PRK BRK	F7UA	40A	• Not Used
8	I/P BEC 2	F8UA	60A	• X51L Fuse Block - Instrument Panel Left
9	MSB DRVR	F9UA	40A	• Not Used
10	REAR DEFOG	F10UA	30A	• E18 Rear Defogger Grid (C49)
11	STRTR	F11UA	40A	• KR27 Starter Relay
12	COOL FAN 1	F12UA	40A	• G10L Cooling Fan Motor-Left
13	COOL FAN 2	F13UA	40A	• G10R Cooling Fan Motor-Right
85	FUEL HEATER	F85UA	50A	• KR22 Fuel Heater Relay (L5P)
Mini Fuses 2 Pin				
14	TRLR STOP TRN LT	F14UA	10A	• X88 Trailer Connector (Z82)
15	TRLR PRK LAMP	F15UA	20A	• X88 Trailer Connector (Z82)
16	REV LAMP	F16UA	10A	• X88 Trailer Connector (Z82)
17	TRLR STOP TRN RT	F17UA	10A	• X88 Trailer Connector (Z82)
Micro Fuses 2 Pin				
18	FUEL PUMP	F18UA	20A	• KR23A Fuel Pump Relay (N2N)
19	ICCM	F19UA	10A	• K38 Chassis Control Module (JL1)
20	ESC ELC EXH	F20UA	30A	• K19 Suspension Control Module (1500)
21	FPPM	F21UA	30A	• K38 Chassis Control Module (XFE)
22	UPFTR SW1	F22UA	5A	• KR161A Configurable Provision Relay 1 (9L7) • KR161B Configurable Provision Relay 2 (9L7)
23	UPFTR 2	F23UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
24	FRT/WPR	F24UA	25A	• KR12B Windshield Wiper Relay • KR12C Windshield Wiper Speed Control Relay
25	ABS VLV	F25UA	25A	• K17 electronic Brake Control Module
26	UPFTR SW2	F26UA	5A	• KR161A Configurable Provision Relay 1 (9L7) • KR161B Configurable Provision Relay 2 (9L7)
27	UPFTR SW3	F27UA	5A	• KR161C Configurable Provision Relay 3 • (9L7),KR161D Configurable Provision Relay 4
28	PRK LAMP RT	F28UA	15A	• E4T Park/Turn Signal Lamp - Right Upper (Chevrolet/X88) • E4R Park/Turn Signal Lamp - Right Lower (Chevrolet/X88) • E4N Park/Turn Signal Lamp - Left (GMC/Z88) • K166L Multifunction LED Control Module - Left Headlamp (GMC/Z88 with SLT) • E2RM Side Marker Lamp - Right Middle (DPN or DQS) • E2A Marker Lamp - Endgate (DRW) • E3RR Rear Fender Clearance Lamp - Right Rear (DRW) • E3RF Rear Fender Clearance Lamp - Right Front (DRW) • E5AH Tail/Stop and Turn Signal Lamp - Right Upper (without ZW9)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
				• E5V Tail/Stop and Turn Signal Lamp - Right Lower (without ZW9) • E2RR Side Marker Lamp - Right Rear (Z88 without ZW9) • E5T Tail/Stop and Turn Signal Lamp - Right (ZW9)
29	PRK LAMP LT	F29UA	15A	• E4S Park/Turn Signal Lamp - Left Upper (Chevrolet/X88) • E4Q Park/Turn Signal Lamp - Left Lower (Chevrolet/X88) • E3LF Rear Fender Clearance Lamp-Left Front (DRW) • E3A Roof Clearance Lamp-Left front Outer (U01) • E3C Roof Clearance Lamp-Front Middle (U01) • E3E Clearance Lamp-Right Front Outer (U01) • E3LR Rear Fender Clearance Lamp-Left Rear (DRW) • E4N Park/Turn Signal Lamp - Left (GMC/Z88) • K166L Multifunction LED Control Module - Left Headlamp (GMC/Z88 with SLT) • E2LM Side Marker Lamp - Left Middle (DPN/DQS) • E5AG Tail/Stop and Turn Signal Lamp - Left Upper (without ZW9) • E5U Tail/Stop and Turn Signal Lamp - Left Lower (without ZW9) • E2LR Side Marker Lamp - Left Rear (Z88 without ZW9) • E5S Tail/Stop and Turn Signal Lamp - Left (ZW9)
30	UPFTR 3	F30UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
31	UPFTR SW4	F31UA	5A	• KR161C Configurable Provision Relay 3 (9L7) • KR161D Configurable Provision Relay 4 (9L7)
32	UPFTR 4	F32UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
33	BCK UP LAMP	F33UA	10A	• A10 Inside Rearview Mirror • B87 Rearview Camera (UVC without E29) • E5A Backup Lamp - Left • E5B Backup Lamp - Right
34	ECM IGN	F34UA	15A	• K20 Engine Control Module • K38 Chassis Control Module • K111 Fuel Pump Driver Control Module (1500)
35	A/C CLTCH	F35UA	10A	• KR29 A/C Compressor Clutch Relay
36	HTD MIR	F36UA	15A	• E17D Outside Rearview Mirror Glass-Driver (DL8/DL3/DPN/DQS) • E17P Outside Rearview Mirror Glass-Passenger (DL8/DL3/DPN/DQS)
37	UPFTR 1	F37UA	30A	• W25 Blunt Cut - Configurable Provision (9L7 with E29) • X61A Junction Block - Instrument Panel (9L7 without E29)
38	CHMSL	F38UA	10A	• E6 Center High Mounted Stop Lamp
39	MISC IGN	F39UA	10A	• Not Used

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
40	TRANS IGN	F40UA	15A	• T12 Automatic Transmission Assembly (MYC/MYD) • M26 Front Axle Engagement Actuator • K71 Transmission Control Module
41	FUEL PUMP 2	F41UA	20A	• KR23B Fuel Pump Relay - Secondary
42	COOL FAN CLTCH	F42UA	10A	• KR20F Cooling Fan Relay (L5P)
43	ENG	F43UA	15A	• B75C Multi Function Intake Air Sensor (1500) • B198 Fuel Composition Sensor (1500)
44	INJ A ODD	F44UA	20A	• K20 Engine Control Module (1500) • T8A Ignition Coil 1 • T8C Ignition Coil 3 • T8E Ignition Coil 5
45	INJ B EVEN	F45UA	20A	• K20 Engine Control Module (1500) • T8B Ignition Coil 2 • T8D Ignition Coil 4 • T8F Ignition Coil 6
46	AFTERBOIL	F46UA	10A	• Not Used
47	THROT CONT	F47UA	15A	• K20 Engine Control Module
48	HORN	F48UA	15A	• P12 Horn
49	FOG LAMP	F49UA	15A	• E29LF Fog Lamp-Left Front • E29RF Fog Lamp-Right Front
50	O2 SNSR A	F50UA	15A	• Not Used
51	ECM	F51UA	30A	• K20 Engine Control Module
52	INT HTR	F52UA	10A	• KR81 Auxiliary Battery Relay 1 (K4B/K4D)
53	POLICE UPFTR	F53UA	10A	• Not Used
54	FRT WASH	F54UA	15A	• G24 Windshield Washer Pump
80	LVL EXH SOL	F80UA	15A	• Not Used
81	DEF HEATER	F81UA	25A	• K115 Reductant Control Module (L5P)
82	FUEL HEATER	F82UA	30A	• E11A Fuel Heater/Water in Fuel Sensor (L5P)
84	TIM	F84UA	25A	• Not Used
86	EURO TRLR R/C	F86UA	10A	• Not Used
Micro Fuses 3 Pin				
55	A/C CMPRSR MDL/BATT RVC	F55UA	5A	• K9 Body Control Module • K43 Power Steering Control Module (NV8)
56	SCRPM/SEN ENB	F56UA	10A	• K115 Reductant Control Module (L5P) • B195A Nitrogen Oxides Sensor 1 (L5P) • M103 Turbocharger Vane Position Actuator (L5P) • B195B Nitrogen Oxides Sensor 2 (L5P) • K111 Fuel Pump Driver Control Module (L5P) • B136 Exhaust Particulate Matter Sensor (L5P)
57	TCM / ECM	F57UA	15A	• K20 Engine Control Module • Q13 Evaporative Emission Vent Solenoid Valve (without L5P) • T12 Automatic Transmission Assembly (MYC/MYD) • K71 Transmission Control Module (M5U/MW7)
58	HDLP RT / LT	F58UA	10A	• E4E Headlamp-Left High Beam (X88) • E4F Headlamp-Right High Beam (X88)

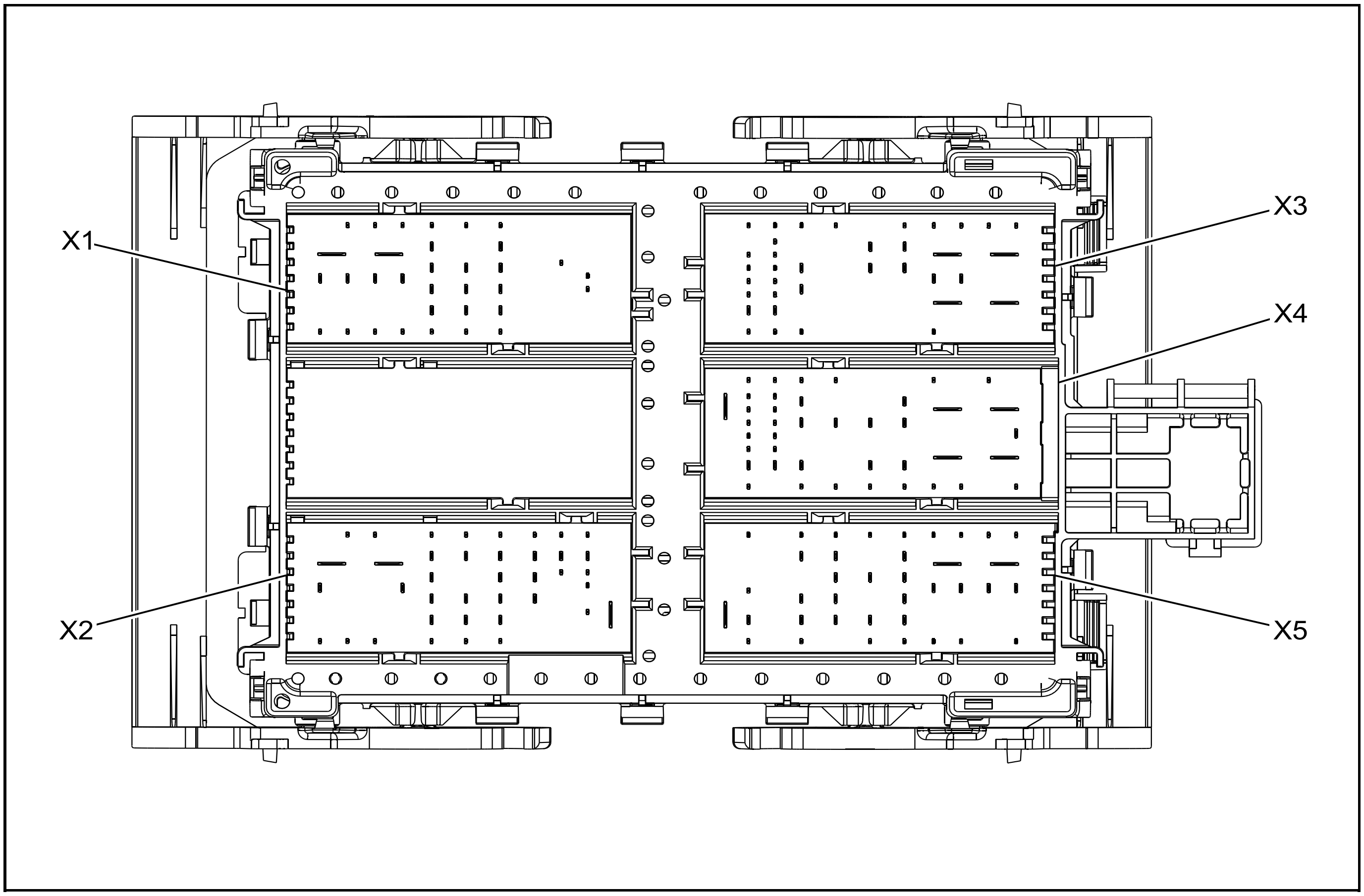
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
				• K81L Headlamp High Beam Control Module - Left (Z88) • K81R Headlamp High Beam Control Module - Right (Z88)
Micro Relays				
59	FUEL PUMP	KR23A Fuel Pump Relay	—	• G12 Fuel Pump (L5P with N2N)
60	UPFTR 2	KR161B Configurable Provision Relay 2	—	• F23UA (9L7)
61	UPFTR 3	KR161C Configurable Provision Relay 3	—	• F30UA (9L7)
62	UPFTR 4	KR161D Configurable Provision Relay 4	—	• F32UA (9L7)
63	TRLR PRK LAMPS	KR125 Trailer Park Lamps Relay	—	• F15UA • F28UA • F29UA • K9 Body Control Module
64	RUN/CRNK	KR73 Ignition Main relay	—	• F26UA (9L7) • F31UA (9L7) • F34UA • F39UA • F40UA • F41UA (2500/3500) • F56UA
65	UPFTR 1	KR161A Configurable Provision Relay 1	—	• F37UA (9L7)
66	FUEL PUMP 2	KR23B Fuel Pump Relay - Secondary	—	• G12B Fuel Pump - Secondary
67	A/C CNTRL	KR29 A/C Compressor Clutch Relay	—	• Q2 A/C Compressor Clutch • K20 Engine Control Module
68	STRTR	KR27 Starter Relay	—	• M64 Starter Motor
78	DEF HEATER	KR121A Reductant Control Module Relay 1	—	• F81UA (L5P) • K20 Engine Control Module (L5P)
79	PT SENSOR	KR121B Reductant Control Module Relay 2	—	• F56UA (L5P) • K20 Engine Control Module (L5P)
Mini Relays				
69	REAR DEFOG	KR5 Rear Defogger Relay	—	• F10UA • F36UA
70	ECM	KR75 Engine Controls Ignition Relay	—	• F42UA (L5P) • F43UA • F44UA • F45UA • F46UA • F47UA • F50UA • F51UA • KR29 A/C Compressor Clutch Relay

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
Solid State Relays				
71	COOL FAN CLTCH	KR20F Cooling Fan Relay	—	• K22 Cooling Fan Control Module (L5P)
ISO HC RELAY				
75	FUEL HEATER	KR22 Fuel Heater Relay	—	• F82UA (L5P) • K20 Engine Control Module (L5P)
Test Points				
72	CKT 95	72	—	• —
73	CKT 92	73	—	• —
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR3 Horn Relay	—	• F48UA
—	—	KR11 Windshield Washer Pump Relay	—	• F54UA
—	—	KR12B Windshield Wiper Relay	—	• KR12C Windshield Wiper Speed Control Relay
—	—	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
—	—	KR46 Front Fog Lamp Relay	—	• F49UA (T3U)
—	—	KR48 Headlamp High Beam Relay	—	• F58UA
—	—	KR59 Stop Lamp Relay	—	• F38UA
—	—	KR61 Trailer Backup Lamp Relay	—	• F16UA • F33UA
—	—	KR63L Trailer Stop/Turn Signal Lamp Relay-Left	—	• F14UA
—	—	KR63R Trailer Stop/Turn Signal Lamp Relay-Right	—	• F17UA

X50A Fuse Block - Underhood Bottom View



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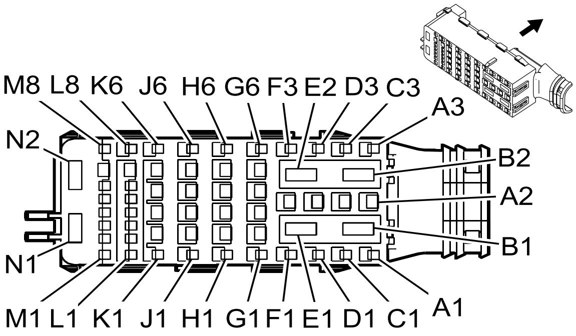
X50A Fuse Block - Underhood X1



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Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33116190
Service Connector: 19329923
Description: 58-Way F 1.5, 2.8, 800 Metri-Pack Series (BN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
II	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

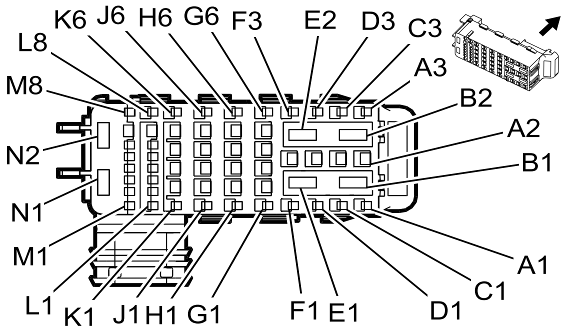
X50A Fuse Block - Underhood X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - B1	—	—	—	Not Occupied	—	—
B2	4	RD/GY	642	Battery Positive Voltage	I	—
C1 - C3	—	—	—	Not Occupied	—	—
D1	0.75	YE	712	Left Headlamp Low Beam Control	III	—
D2	—	—	—	Not Occupied	—	—
D3	0.75	GN/VT	1315	Right Front Turn Signal Lamp Control	III	—
E1	—	—	—	Not Occupied	—	—
E2	4	RD/WH	342	Battery Positive Voltage	I	—
F1	0.5	GY/BN	309	Right Park Lamp Control	III	—
F2	0.75	GY/VT	228	Windshield Washer Pump Control	II	—
F3	0.75	BU/WH	1314	Left Front Turn Signal Lamp Control	III	—
G1	0.5	VT/GY	709	Left Park Lamp Control	III	—
G2	—	—	—	Not Occupied	—	—
G3	0.5	VT/GY	3139	Run/Crank Ignition 1 Voltage	II	—
G4	0.5	BK	150	Ground	II	—
G5 - H1	—	—	—	Not Occupied	—	—
H2	0.75	GY/BU	7538	Left Front DRL Control	II	—

X50A Fuse Block - Underhood X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
H3	—	—	—	Not Occupied	—	—
H4	0.5	WH	311	Right Headlamp High Beam Control	II	—
H5	—	—	—	Not Occupied	—	—
H6	0.75	BU/BN	7539	Right Front DRL Control	III	—
J1	—	—	—	Not Occupied	—	—
J2	0.75	BN/GY	29	Horn Control	II	—
J3	0.5	BN/VT	2234	Front Fog Lamp Control	II	—
J4	0.5	WH	711	Left Headlamp High Beam Control	II	—
J5	0.75	YE	312	Right Headlamp Low Beam Control	II	—
J6 - L5	—	—	—	Not Occupied	—	—
L6	0.5	GY/BU	3769	MGU Coolant Pump Control	III	—
L7 - M3	—	—	—	Not Occupied	—	—
M4	0.5	WH/BU	3203	Right Headlamp Bulb Outage Signal	III	—
M5	0.5	BU/VT	3204	Left Headlamp Bulb Outage Signal	III	—
M6 - N2	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X2



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Connector Part Information

Harness Type: Engine
OEM Connector: 33116191
Service Connector: 19332891
Description: 58-Way F 1.5, 2.8, 800 Metri-Pack Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
II	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	III	—
A2	0.5	YE/BU	5126	After Boil Heater Pump Control	II	—
A3	0.5 0.5	GN/BU VT/GN	3889 439	DEF Power Module Relay Control Run/Crank Ignition 1 Voltage	III III	L5P LV3/L83/L86
B1 - B2	—	—	—	Not Occupied	—	—
C1	0.75	BN/GN	59	A/C Compressor Clutch Control	III	—
C2	—	—	—	Not Occupied	—	—
C3	0.5	BU/GN	7071	Heater Fuel Control	III	—
D1	0.5	GN/BU	3889	DEF Power Module Relay Control	II	—
D2	—	—	—	Not Occupied	—	—
D3	0.5	YE/BK	625	Starter Enable Relay Control	III	—
E1	2.5	BN/VT	1470	Brake Booster Pump Motor Control	I	—
E2	4 3	YE YE/VT	6 6	Starter Solenoid Crank Ignition Voltage Starter Solenoid Crank Ignition Voltage	I I	(L86-L83)/L83/L8B/LV1/LV3/(L96-LV1-LV3-L83-L86) L5P
F1	—	—	—	Not Occupied	—	—
F2	2.5	BK	550	Ground	II	—

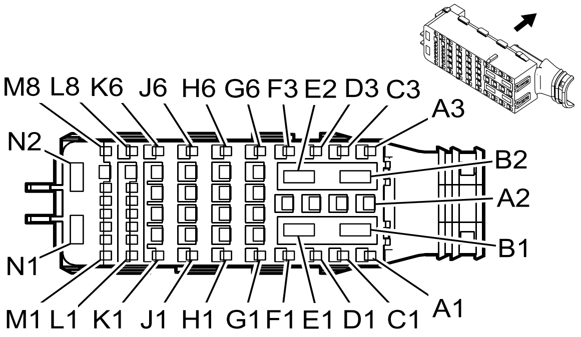
X50A Fuse Block - Underhood X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F3	0.5 0.5	WH/BN GY/BN	1089 2410	Coolant Pump Motor Relay Control Fuel Pump Prime Control	III III	L5P LV3/L83/L86
G1	0.5	WH	2368	Cooling Fan Control Signal	III	—
G2	2.5	BU	3921	DEF Heater Supply 1	II	—
G3	0.75 0.5	VT/BU VT/BU	5293 5293	Powertrain Main Relay Fused Supply 4 Powertrain Main Relay Fused Supply 4	II II	L96 LV1/LV3/L83/L86/L8B/L8X
G4	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
G5	1.5 0.75	RD/GN RD/GN	1840 1840	Battery Positive Voltage Battery Positive Voltage	II II	M5U/M5X/MW7 ML9/MYC/MYD
G6	0.5 0.75	RD/WH RD/WH	3440 3440	Battery Positive Voltage Battery Positive Voltage	III III	K4B/K4D/5W4/9C1 L5P
H1	—	—	—	Not Occupied	—	—
H2	0.75 1.5	VT/BU VT/BU	5291 5291	Powertrain Main Relay Fused Supply 2 Powertrain Main Relay Fused Supply 2	II II	L83/L86/L8B/L8X/LV1/LV3 L96
H3	0.75	VT/BU	5293	Powertrain Main Relay Fused Supply 4	II	—
H4	—	—	—	Not Occupied	—	—
H5	0.5	RD/BN	440	Battery Positive Voltage	II	—
H6	0.5	YE	5991	Powertrain Relay Coil Control	III	—
J1	—	—	—	Not Occupied	—	—
J2	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
J3	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
J4	0.75 1.5	VT/BU VT/BU	5292 5292	Powertrain Main Relay Fused Supply 3 Powertrain Main Relay Fused Supply 3	II II	L83/L86/L8B/L8X/LV1/LV3 L96
J5	0.5 0.5	YE/BU VT/BU	5126 5294	After Boil Heater Pump Control Powertrain Main Relay Fused Supply 5	II II	L5P LV3/L83/L86
J6	0.75	VT/BU	5290	Powertrain Main Relay Fused Supply 1	III	—
K1 - K2	—	—	—	Not Occupied	—	—
K3	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
K4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	—
K5	2.5 0.75	VT/BU VT/BU	3674 5292	NOx Sensor 1 Control Powertrain Main Relay Fused Supply 3	II II	L5P LV3/L83/L86
K6	0.5	VT/GN	4320	Selective Catalytic Reduction Power Module Wake-Up Signal	III	—
L1 - L5	—	—	—	Not Occupied	—	—
L6	0.5	RD/WH	2740	Battery Positive Voltage	III	—
L7	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	II	—
L8	—	—	—	Not Occupied	—	—
M1	0.5	YE/BU	1465	Secondary Fuel Pump Relay Control	III	—
M2	—	—	—	Not Occupied	—	—
M3	0.5 0.5	WH/BK VT/YE	2366 3854	Cooling Fan Control Relay Speed Signal Cabin Heater Coolant Motor Control	III III	L5P LV3/L83/L86
M4	0.5	WH/BN	3768	MGU Coolant Pump Relay Control	III	—
M5	0.5 0.5	GN/GY GY	465 5660	Fuel Pump Primary Relay Control Fuel Pump Controller Data Out Signal	III III	L5P LV3/L83/L86

X50A Fuse Block - Underhood X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
M6	0.75	BK/WH	451	Signal Ground	III	—
M7	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—
M8	0.5	VT/WH	239	Run/Crank Ignition 1 Voltage	III	—
N1	2.5	RD/GN	742	Battery Positive Voltage	I	—
N2	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X3



3240137

Connector Part Information

Harness Type: Body
OEM Connector: 33116188
Service Connector: 19332892
Description: 58-Way F 1.5, 2.8, 800 Metri-Pack Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575718	J-35616-44 (YE)	J-38125-558	12092445	Delphi 18	G	G
II	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
III	19301751	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

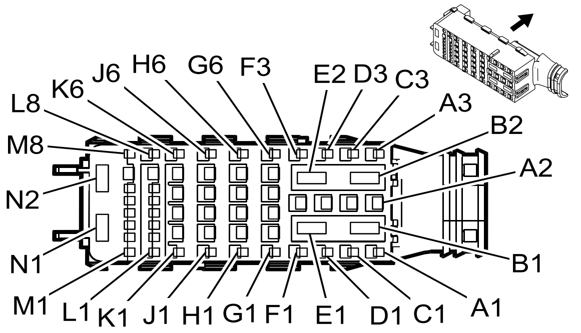
X50A Fuse Block - Underhood X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	YE/BU	18	Left Rear Stop/Turn Lamp Control	V	—
A2 - A3	—	—	—	Not Occupied	—	—
B1	4	RD/GY	1342	Battery Positive Voltage	I	—
B2	2.5	RD/BU	1842	Battery Positive Voltage	II	—
C1	0.5	BN/GN	19	Right Rear Stop/Turn Lamp Control	V	—
C2 - C3	—	—	—	Not Occupied	—	—
D1	0.75 0.75	GN/VT GN/VT	1315 1315	Right Front Turn Signal Lamp Control Right Front Turn Signal Lamp Control	V III	— —
D2	0.35	BU/VT	1124	Door Lock Key Switch Unlock Signal	IV	—
D3 - E2	—	—	—	Not Occupied	—	—
F1	0.75 0.75	BU/WH BU/WH	1314 1314	Left Front Turn Signal Lamp Control Left Front Turn Signal Lamp Control	V III	— —
F2	0.35	WH/VT	3270	Driver Door Lock Motor Status Signal	IV	—
F3	0.5	YE/WH	962	—	V	—

X50A Fuse Block - Underhood X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
G1	0.75	BU/BN	7539	Right Front DRL Control	V	—
G2 - H1	—	—	—	Not Occupied	—	—
H2	1	BK	550	Ground	IV	—
H3 - H6	—	—	—	Not Occupied	—	—
J1	0.35	WH/VT	860	Front Windshield Wiper Switch High Signal	V	—
J2 - J6	—	—	—	Not Occupied	—	—
K1	0.5	VT/WH	5065	Stop Lamp Relay Coil Control	V	—
K2	—	—	—	Not Occupied	—	—
K3	1	YE/BN	95	Windshield Wiper Motor Low Speed Control	IV	—
K4	1	WH	92	Windshield Wiper Motor High Speed Control	IV	—
K5	—	—	—	Not Occupied	—	—
K6	0.35	BN/GY	2268	Windshield Washer Relay Control	V	—
L1	—	—	—	Not Occupied	—	—
L2	0.35	BN/VT	1969	Headlamp High Beam Relay Control	V	—
L3	—	—	—	Not Occupied	—	—
L4	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	V	—
L5	0.5	BN	1317	Fog Lamp Relay Control	V	—
L6	0.35	BN/WH	28	Horn Relay Control	V	—
L7	0.5	BN/YE	2267	Mirror Heating Element Control	IV	—
L8	—	—	—	Not Occupied	—	—
M1	0.75	YE	312	Right Headlamp Low Beam Control	V	—
M2 - M4	—	—	—	Not Occupied	—	—
M5	0.5	RD/WH	961	—	V	—
M6	0.5	VT/GY	1054	Stop Lamp Control	V	—
M7	2.5	BU	965	—	IV	—
M8 - N2	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X4



3240138

Connector Part Information

Harness Type: Body

OEM Connector: 33116186

Service Connector: 19332893

Description: 58-Way F 1.5, 2.8, 800 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
II	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

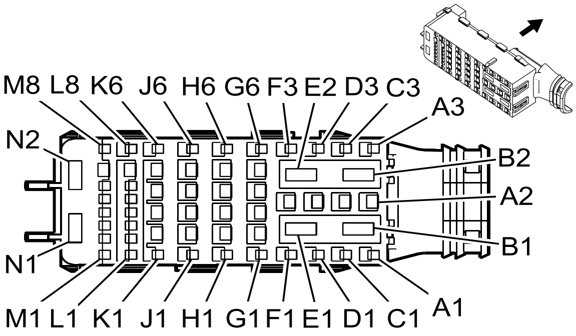
X50A Fuse Block - Underhood X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.5	GN/WH	24	Backup Lamp Control	III	—
B1	—	—	—	Not Occupied	—	—
B2	5	RD/VT	842	Battery Positive Voltage	I	—
C1 - D2	—	—	—	Not Occupied	—	—
D3	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	III	—
E1	—	—	—	Not Occupied	—	—
E2	5	RD/BU	42	Battery Positive Voltage	I	—
F1 - F2	—	—	—	Not Occupied	—	—
F3	0.35	GN/WH	24	Backup Lamp Control	II	—
G1	—	—	—	Not Occupied	—	—
G2	2.5	GY/BK	966	—	II	—
G3 - G5	—	—	—	Not Occupied	—	—
G6	0.5	YE/BK	5356	Left Tail Lamp Outage Detection Signal	III	—
H1 - H4	—	—	—	Not Occupied	—	—
H5	2.5	RD/GN	242	Battery Positive Voltage	II	—
H6	0.5	VT/YE	5357	Right Tail Lamp Outage Detection Signal	III	—

X50A Fuse Block - Underhood X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
J1	0.75	GY/BU	7538	Left Front DRL Control	III	—
J2 - J5	—	—	—	Not Occupied	—	—
J6	0.75	BK/WH	451	Signal Ground	III	—
K1	0.75	YE	712	Left Headlamp Low Beam Control	III	—
K2	0.75 2.5	RD/GN RD/GN	968 968	— —	II II	43+ZYD 9L7/9C1/5W4-E29
K3 - K4	—	—	—	Not Occupied	—	—
K5	0.75 2.5	YE/BN YE/BN	967 967	— —	II II	43+ZYD 9L7/9C1/5W4-E29
K6	0.5	VT/GY	709	Left Park Lamp Control	III	—
L1	0.5	WH/BU	964	—	III	—
L2	0.35	YE/GY	5187	Right Trailer Turn Signal Lamp Control	III	—
L3	0.35	BU/BN	38	Backup Lamp Relay Control	III	—
L4	0.35	BU/WH	5186	Left Trailer Turn Signal Lamp Control	III	—
L5	0.35	BU	45	Park Lamp Relay Control	III	—
L6	0.5	GN/GY	963	—	III	—
L7	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	II	—
L8	—	—	—	Not Occupied	—	—
M1	0.75	RD/YE	2340	Battery Positive Voltage	III	—
M2	0.35	BN/VT	193	Rear Defog Relay Control	III	—
M3 - M4	—	—	—	Not Occupied	—	—
M5	0.35	GN/VT	5199	Run/Crank Relay Coil Control	III	—
M6 - M8	—	—	—	Not Occupied	—	—
N1	2.5	BN/VT	293	Rear Defog Element Control	I	—
N2	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X5



3240136

Connector Part Information

Harness Type: Chassis

OEM Connector: 33116189

Service Connector: 19332894

Description: 58-Way F 1.5, 2.8, 800 Metri-Pack Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575543	J-35616-35 (VT)	J-38125-12A	1326030-8	Lear 17	B	F
II	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
III	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
IV	13575832	J-35616-4A (PU)	J-38125-11A	7116-4112-02	Yazaki 9	C	D
V	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VI	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

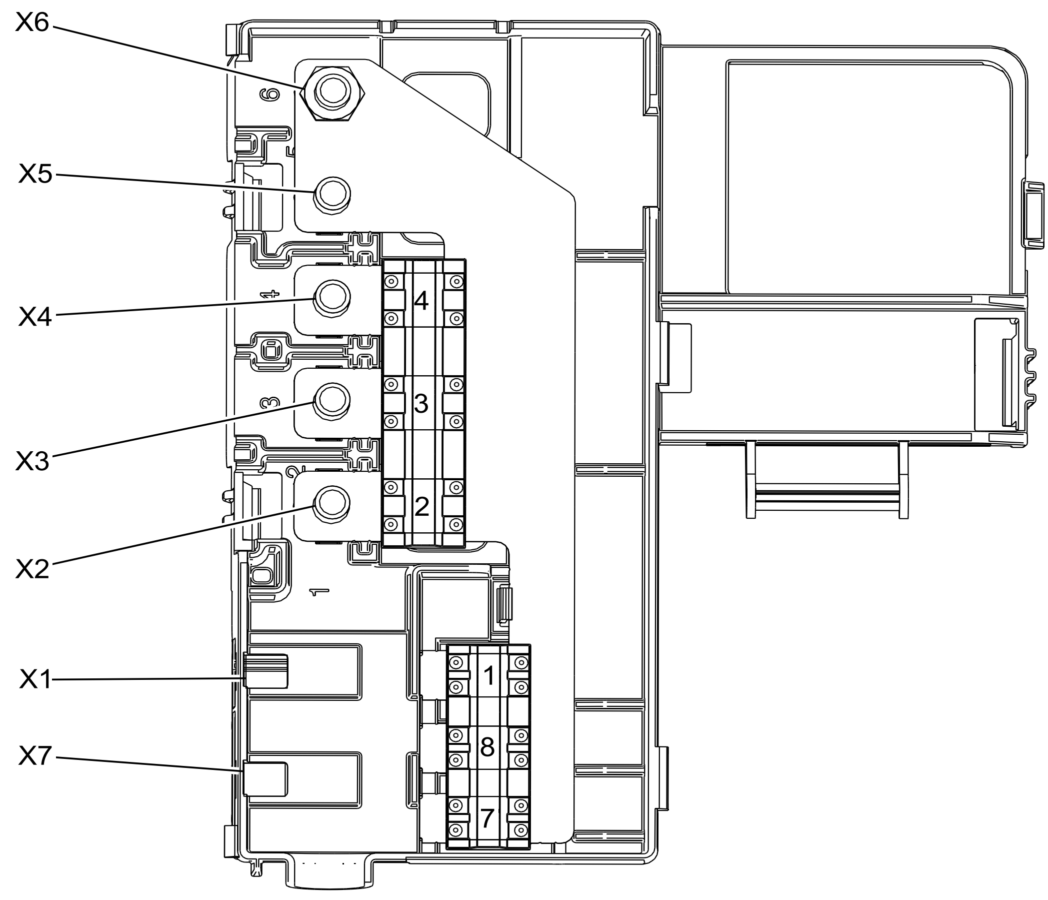
X50A Fuse Block - Underhood X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	—	—	—	Not Occupied	—	—
A2	0.75	YE/GN	18	Left Rear Stop/Turn Lamp Control	V	—
A3	0.75	BN/GN	19	Right Rear Stop/Turn Lamp Control	VI	—
B1	5	RD/YE	442	Battery Positive Voltage	II	—
B2	—	—	—	Not Occupied	—	—
C1	0.75	GN/WH	24	Backup Lamp Control	VI	—
C2	2.5	RD/YE	1142	Battery Positive Voltage	V	—
C3	—	—	—	Not Occupied	—	—
D1	0.5	VT/GN	1739	Run/Crank Ignition 1 Voltage	VI	—
D2 - E2	—	—	—	Not Occupied	—	—
F1	0.5	GN	24	Backup Lamp Control	VI	—
F2 - F3	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
G1	0.5	YE/BK	5356	Left Tail Lamp Outage Detection Signal	VI	—
G2	2.5	RD/VT	1940	Battery Positive Voltage	V	—
G3	3	RD/GN	2440	Battery Positive Voltage	IV	—
G4	0.75	RD/WH	2040	Battery Positive Voltage	V	—
G5 - G6	—	—	—	Not Occupied	—	—
H1	0.5	VT/YE	5357	Right Tail Lamp Outage Detection Signal	VI	—
H2	—	—	—	Not Occupied	—	—
H3	0.5	RD/GN	1840	Battery Positive Voltage	V	—
H4	—	—	—	Not Occupied	—	—
H5	2.5	VT/GN	355	Fuel Filter Heater Voltage	V	—
H6 - J1	—	—	—	Not Occupied	—	—
J2	2.5 5	RD/GN RD/GN	242 242	Battery Positive Voltage Battery Positive Voltage	V I	SERIES10 SERIES20/ SERIES30+JL1
J3	1.5	GY/BN	2109	Trailer Park Lamp Control	V	—
J4	2.5	RD/VT	1640	Battery Positive Voltage	V	—
J5	0.75	VT/GN	439	Run/Crank Ignition 1 Voltage	V	JL1/L96/L5P
J6 - K1	—	—	—	Not Occupied	—	—
K2	0.75	VT/GY	709	Left Park Lamp Control	V	—
K3	—	—	—	Not Occupied	—	—
K4	0.5	GY/BN	309	Right Park Lamp Control	V	—
K5	0.75	YE/GY	1618	Left Rear Trailer Stop/Turn Lamp Control	V	—
K6	0.75	GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Control	VI	—
L1 - L4	—	—	—	Not Occupied	—	—
L5	0.5	BN	6305	Brake Vacuum Switch Signal	VI	—
L6	—	—	—	Not Occupied	—	—
L7	2.5	GY	120	Fuel Pump Control	V	—
L8	—	—	—	Not Occupied	—	—
M1	0.5	VT/GY	1054	Stop Lamp Control	VI	—
M2 - M4	—	—	—	Not Occupied	—	—
M5	0.5 0.5	GY GN/GY	5660 465	Fuel Pump Controller Data Out Signal Fuel Pump Primary Relay Control	III VI	FPPM L96/L5P
M6	—	—	—	Not Occupied	—	—
M7	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	V	—
M8	0.75	WH/GN	1624	Trailer Backup Lamp Control	VI	—
N1	—	—	—	Not Occupied	—	—
N2	4	RD/GN	742	Battery Positive Voltage	II	—

X50D Fuse Block - Battery Top View

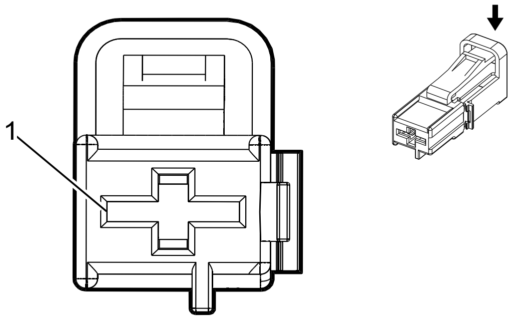


3634082

X50D Fuse Block – Battery Usage

No.	Device Label Name	Device Assigned Name	Rating	Description
1	—	F1UD	100A	• KR79 Auxiliary Battery Relay 2 (5W4 or 9C1)
2	—	F2UD	175A	• G13 Generator • X50A Fuse Block - Underhood
3	—	F3UD	—	• Not Occupied
4	—	F4UD	175A	• K43 Power Steering Control Module
5	—	F7UD	60A	• X51R Fuse Block - Instrument Panel Right
6	—	F8UD	60A	• X51R Fuse Block - Instrument Panel Right

X50D Fuse Block - Battery X1



3240141

Connector Part Information

Harness Type: Body
OEM Connector: 13629098
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 8.0 Series (BU)

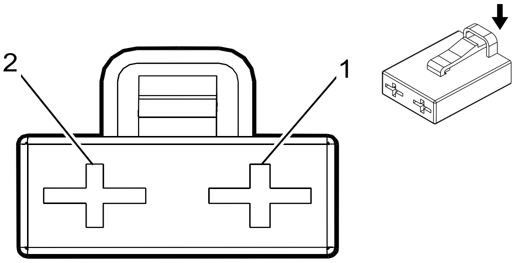
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-44 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD/GY	642	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X7



3240143

Connector Part Information

Harness Type: Body
OEM Connector: 13627842
Service Connector: 19329484
Description: 2-Way F 8.0 Series (BU)

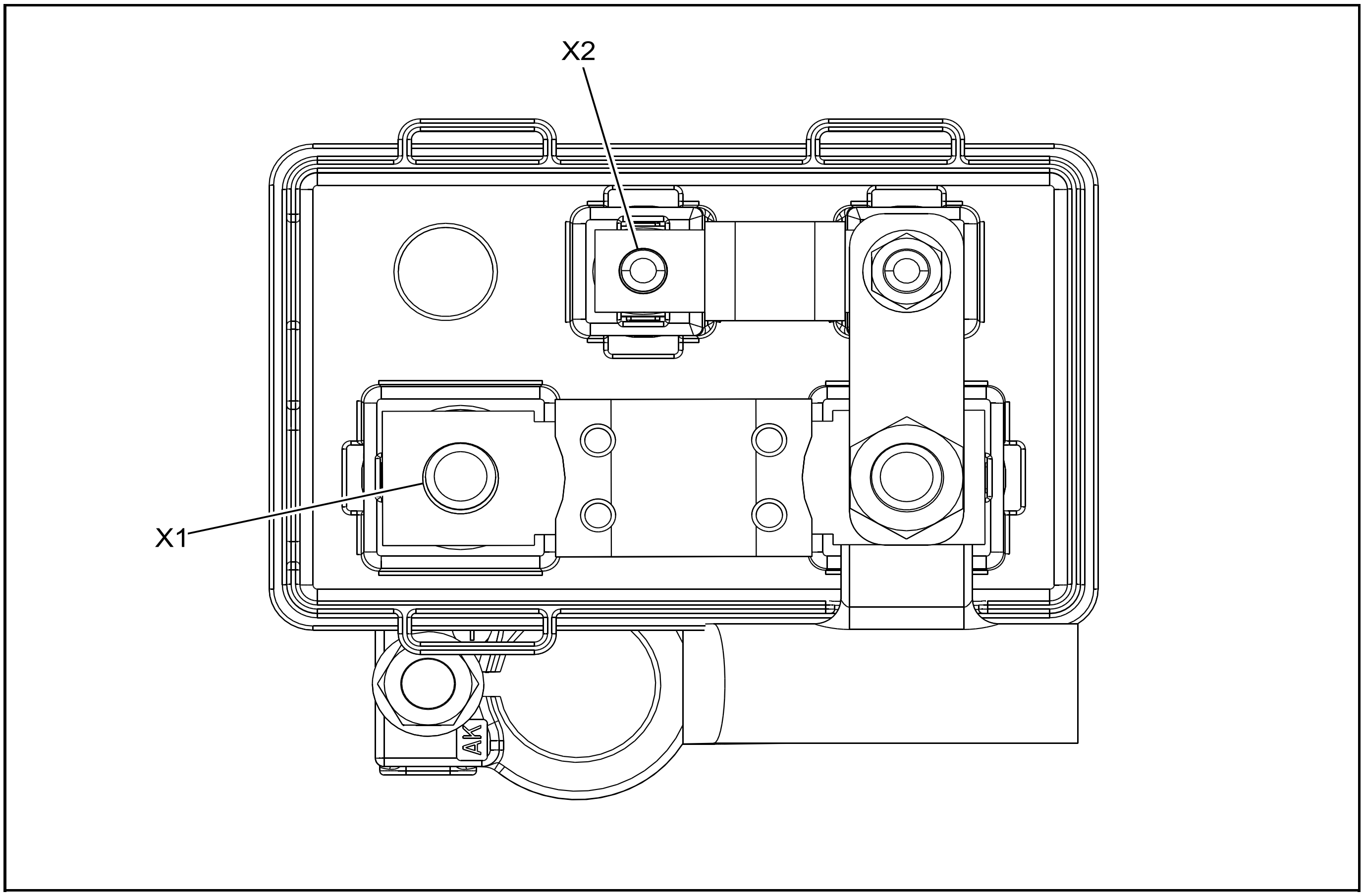
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-44 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	6	RD/GY	142	Battery Positive Voltage	I	—
2	6	RD/GN	242	Battery Positive Voltage	I	—

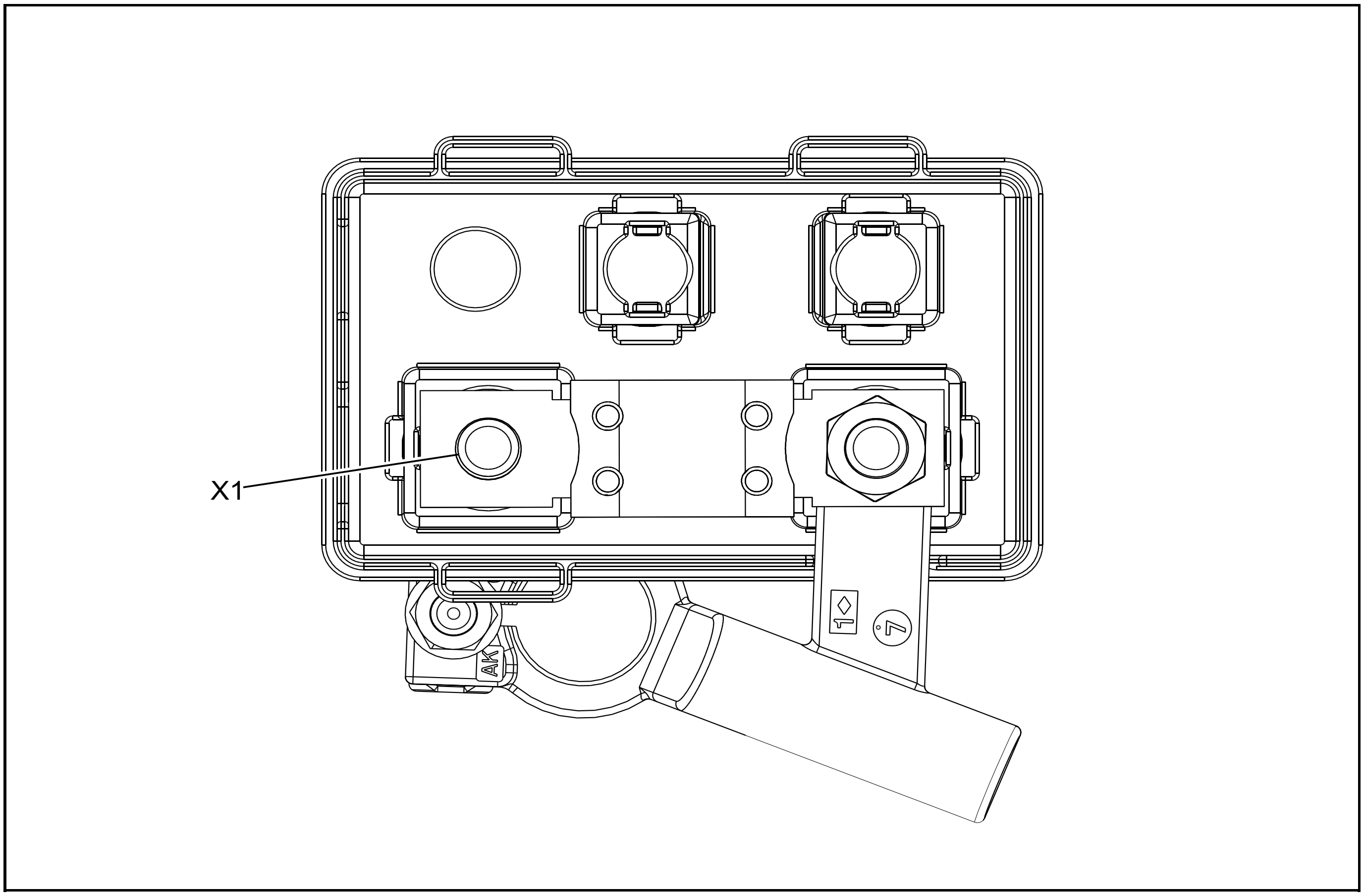
X50E Fuse Block - Auxiliary Battery Top View (K4B or K4D)



X50E Fuse Block – Auxiliary Battery Usage (K4B or K4D)

No.	Device Label Name	Device Assigned Name	Rating	Description
Enter Type of Device Name Here and Insert this Type of Row before Every Different Type of Device within the Block				
1	—	F1UE	125A	• KR79 Auxiliary Battery Relay 2
2	—	F2UE	30A	• W1 Blunt Cut – Camper Trailer Provision (UY2) • X88 Trailer Connector (Z82)

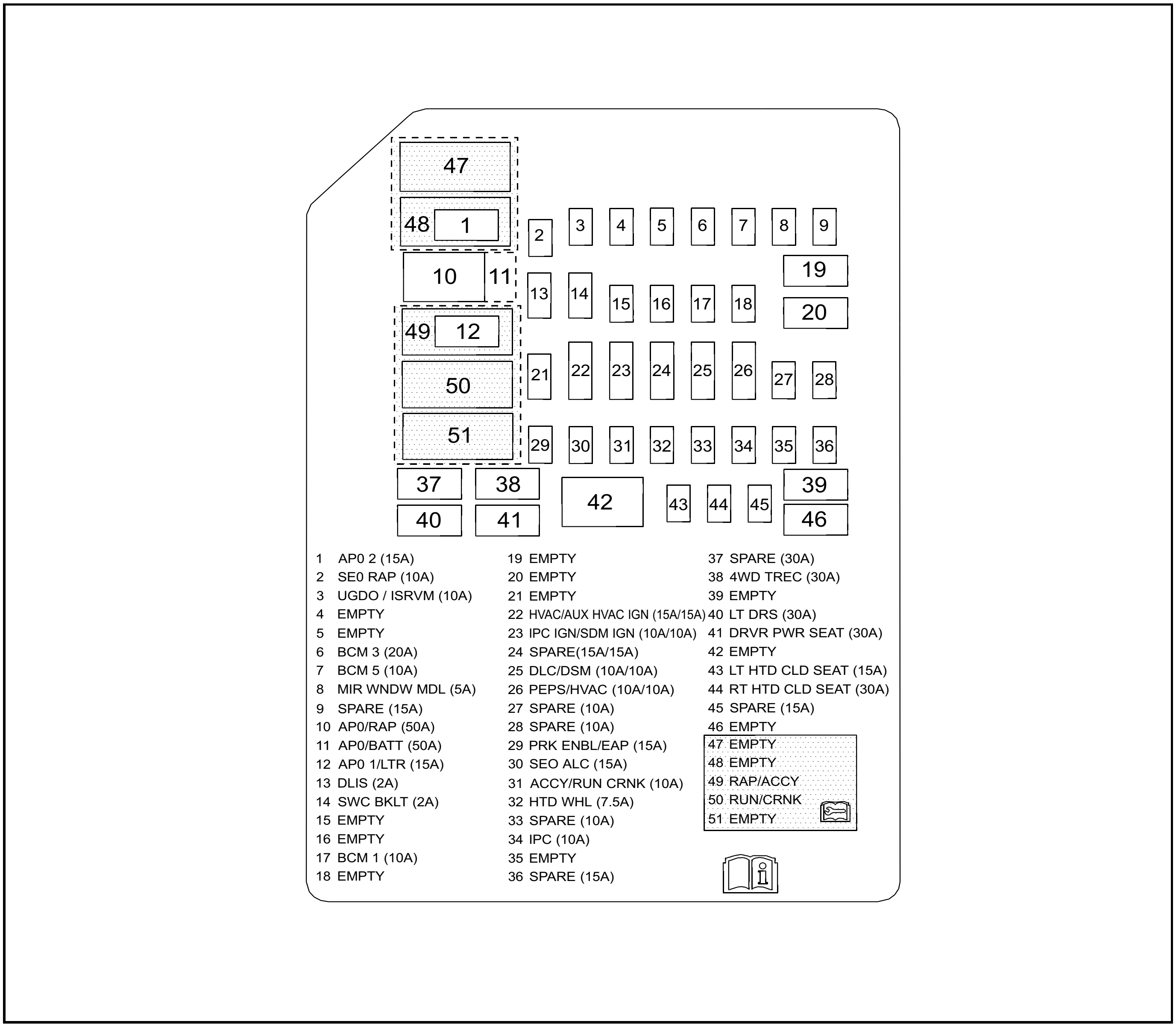
X50E Fuse Block - Auxiliary Battery Top View (L5P)



X50E Fuse Block – Auxiliary Battery Usage (LML)

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	—	F1UE	175A	• G13E Generator – Auxiliary (KH5 or KHB)

X51L Fuse Block - Instrument Panel Left Label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1	AP0 2 (15A)
2	SE0 RAP (10A)
3	UGDO / ISRVM (10A)
4	EMPTY
5	EMPTY
6	BCM 3 (20A)
7	BCM 5 (10A)
8	MIR WNDW MDL (5A)
9	SPARE (15A)
10	AP0/RAP (50A)
11	AP0/BATT (50A)
12	AP0 1/LTR (15A)
13	DLIS (2A)
14	SWC BKLT (2A)
15	EMPTY
16	EMPTY
17	BCM 1 (10A)
18	EMPTY
19	EMPTY
20	EMPTY
21	EMPTY
22	HVAC/AUX HVAC IGN (15A/15A)
23	IPC IGN/SDM IGN (10A/10A)
24	SPARE(15A/15A)
25	DLC/DSM (10A/10A)
26	PEPS/HVAC (10A/10A)
27	SPARE (10A)
28	SPARE (10A)
29	PRK ENBL/EAP (15A)
30	SEO ALC (15A)
31	ACCY/RUN CRNK (10A)
32	HTD WHL (7.5A)
33	SPARE (10A)
34	IPC (10A)
35	EMPTY
36	SPARE (15A)
37	SPARE (30A)
38	4WD TREC (30A)
39	EMPTY
40	LT DRS (30A)
41	DRVR PWR SEAT (30A)
42	EMPTY
43	LT HTD CLD SEAT (15A)
44	RT HTD CLD SEAT (30A)
45	SPARE (15A)
46	EMPTY
47	EMPTY
48	EMPTY
49	RAP/ACCY
50	RUN/CRNK
51	EMPTY

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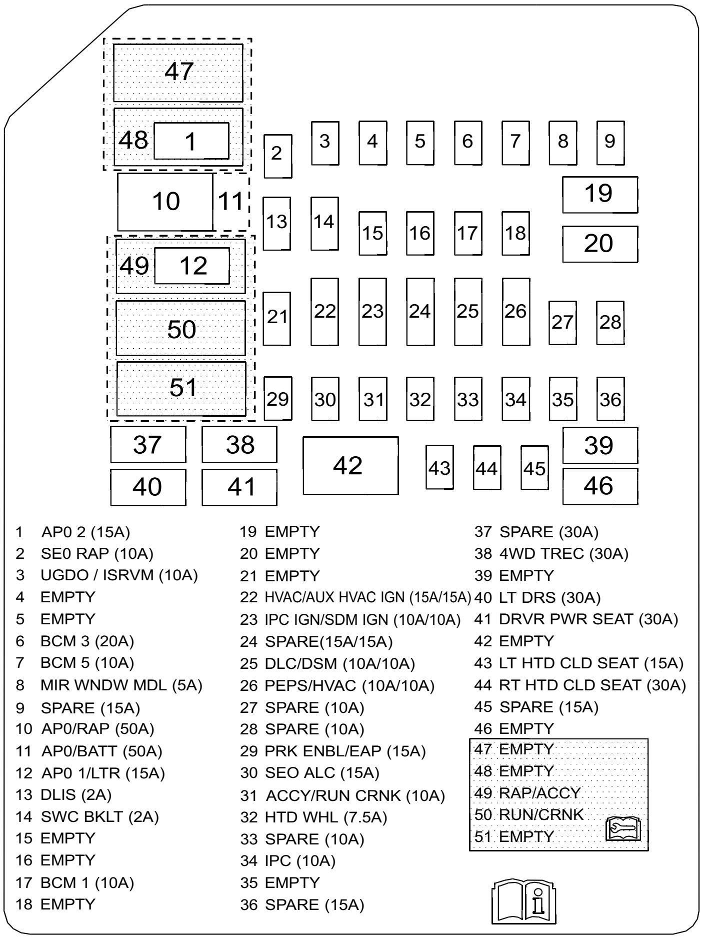
X51L Fuse Block - Instrument Panel Left Label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1 AP0 2 (15A)
2 SE0 RAP (10A)
3 UGDO / ISRVM (10A)
4 EMPTY
5 EMPTY
6 BCM 3 (20A)
7 BCM 5 (10A)
8 MIR WNDW MDL (5A)
9 SPARE (15A)
10 AP0/RAP (50A)
11 AP0/BATT (50A)
12 AP0 1/LTR (15A)
13 DLIS (2A)
14 SWC BKLT (2A)
15 EMPTY
16 EMPTY
17 BCM 1 (10A)
18 EMPTY
19 EMPTY
20 EMPTY
21 EMPTY
22 HVAC/AUX HVAC IGN (15A/15A)
23 IPC IGN/SDM IGN (10A/10A)
24 SPARE(15A/15A)
25 DLC/DSM (10A/10A)
26 PEPS/HVAC (10A/10A)
27 SPARE (10A)
28 SPARE (10A)
29 PRK ENBL/EAP (15A)
30 SEO ALC (15A)
31 ACCY/RUN CRNK (10A)
32 HTD WHL (7.5A)
33 SPARE (10A)
34 IPC (10A)
35 EMPTY
36 SPARE (15A)
37 SPARE (30A)
38 4WD TREC (30A)
39 EMPTY
40 LT DRS (30A)
41 DRVR PWR SEAT (30A)
42 EMPTY
43 LT HTD CLD SEAT (15A)
44 RT HTD CLD SEAT (30A)
45 SPARE (15A)
46 EMPTY
47 EMPTY
48 EMPTY
49 RAP/ACCY
50 RUN/CRNK
51 EMPTY

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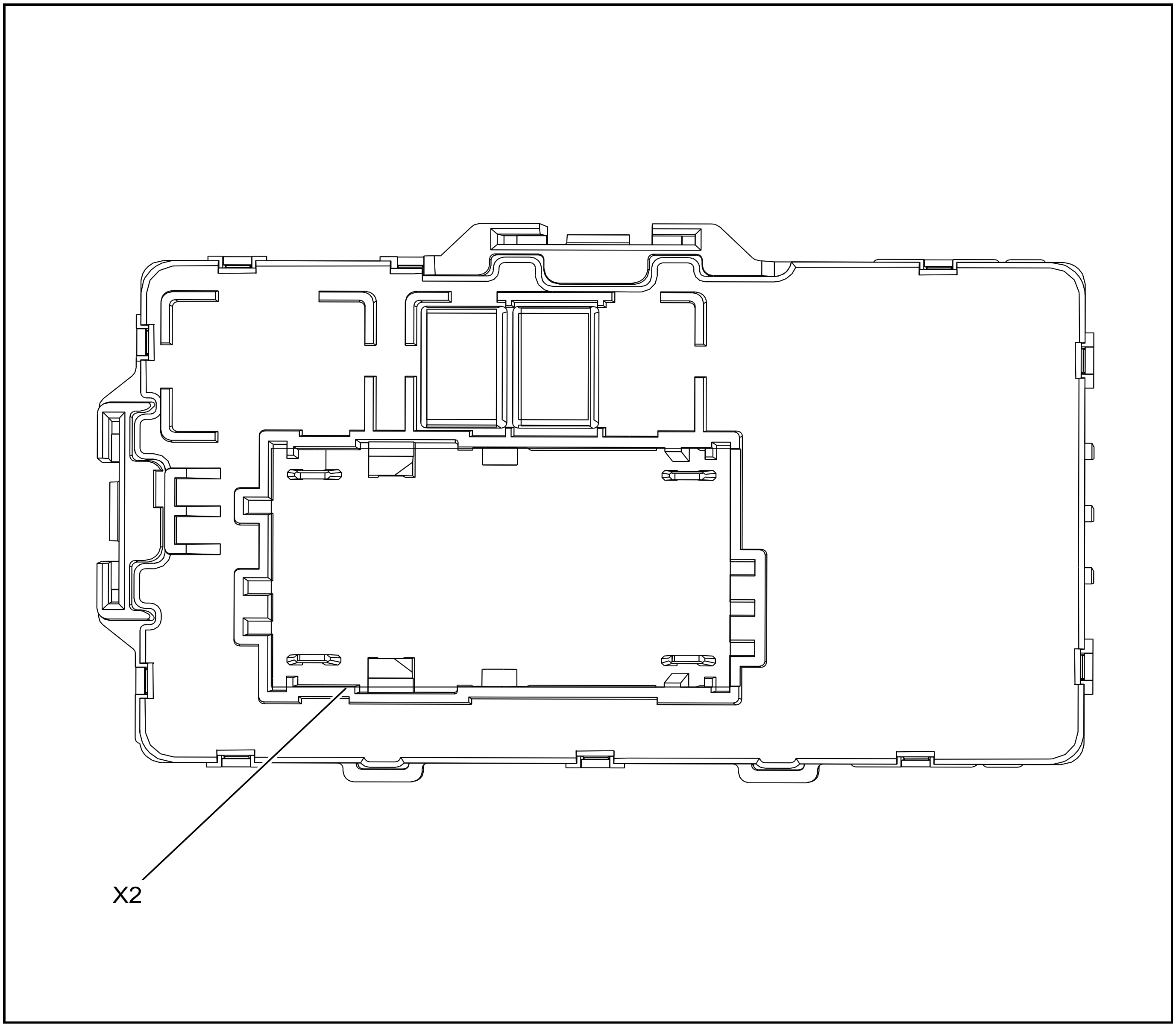
X51L Fuse Block - Instrument Panel Left Bottom View



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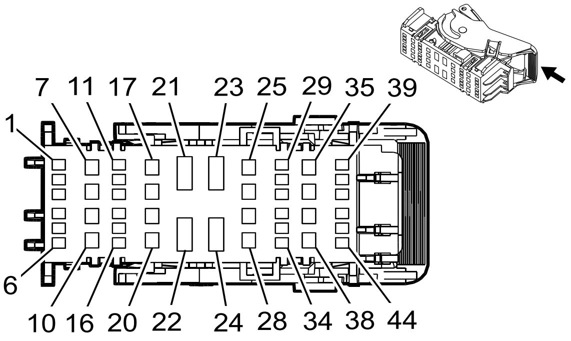
X51L Fuse Block – Instrument Panel Left Label Usage (Relays)

No.	Device Label Name	Device Assigned Name	Rating	Description
47	EMPTY	—	—	• Not Used
48	EMPTY	—	—	• Not Used
49	RAP/ACCY	KR76A Retained Accessory Power Relay 1	—	• F1DL • F2DL • F10DL • F12DL
50	RUN/CRNK	KR73 Ignition Main Relay	—	• F22DL • F23DL • F30DL • F31DL • F32DL • F33DL
51	EMPTY	—	—	• Not Used

X51L Fuse Block – Instrument Panel Left Label Usage (Relays) (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR1F Adjustable Pedal Relay − Forward	—	• M5 Adjustable Pedal Motor
—	—	KR1R Adjustable Pedal Relay − Rearward	—	• M5 Adjustable Pedal Motor
—	—	KR87 Transmission Park Relay	—	• KR1F Adjustable Pedal Relay − Forward • KR1R Adjustable Pedal Relay − Rearward

X51L Fuse Block - Instrument Panel Left X1



Connector Part Information

Harness Type: Body
OEM Connector: 13967687
Service Connector: 19329455
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
II	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

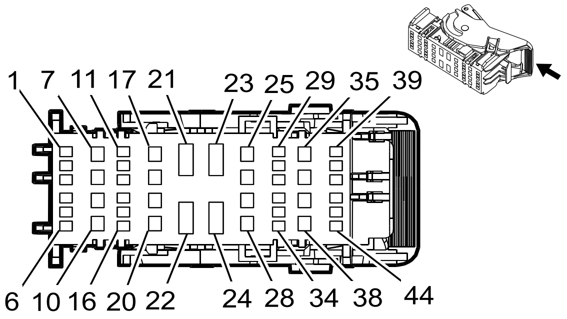
X51L Fuse Block - Instrument Panel Left X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.5	RD/BN	1140	Battery Positive Voltage	III	—
6 - 14	—	—	—	Not Occupied	—	—
15	0.35	GN/GY	5286	Adjustable Pedal Switch Forward Signal	III	—
16	0.5	RD/VT	1940	Battery Positive Voltage	III	—
17	0.75	RD/GN	6140	Battery Positive Voltage	II	—
18	0.75 0.75	RD/GN RD/GN	5140 5140	Battery Positive Voltage Battery Positive Voltage	II	— —
19	—	—	—	Not Occupied	—	—
20	0.75	GN/VT	5130	Adjustable Pedal Actuator Forward Control	II	—
21	5	RD/VT	842	Battery Positive Voltage	I	—
22	—	—	—	Not Occupied	—	—
23	5	RD/BU	42	Battery Positive Voltage	I	—
24 - 26	—	—	—	Not Occupied	—	—
27	2.5	RD/YE	5040	Battery Positive Voltage	II	—
28	0.75	YE	5129	Adjustable Pedal Actuator Rearward Control	II	—
29	0.5	VT/BK	739	Run/Crank Ignition 1 Voltage	III	—

X51L Fuse Block - Instrument Panel Left X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
30	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage	III	—
31	—	—	—	Not Occupied	—	—
32	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	III	—
33	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	III	—
34 - 35	—	—	—	Not Occupied	—	—
36	2.5	RD/BU	1842	Battery Positive Voltage	II	—
37	2.5	RD/BU	1842	Battery Positive Voltage	II	—
38 - 41	—	—	—	Not Occupied	—	—
42	0.35	GN/VT	5199	Run/Crank Relay Coil Control	III	—
43	0.35	GY/VT	755	RAP Relay Coil Control	III	—
44	0.35	VT/YE	43	Accessory Ignition Voltage	III	—

X51L Fuse Block - Instrument Panel Left X2



3240119

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13967688
Service Connector: 19329456
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

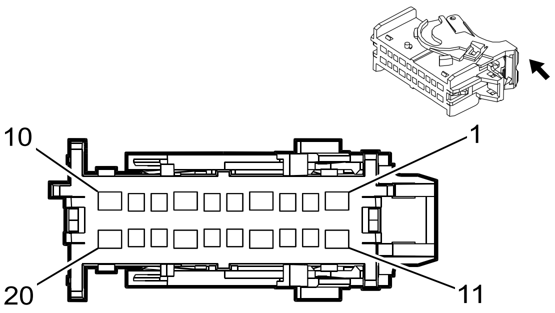
X51L Fuse Block - Instrument Panel Left X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	YE	6817	LED Backlight Dimming Control	II	—
4	0.35	BN	6136	Control	II	—
5	0.35	RD/BU	540	Battery Positive Voltage	II	—
6	—	—	—	Not Occupied	—	—
7	0.5	RD/BN	2940	Battery Positive Voltage	I	—
8	1	RD/GY	2140	Battery Positive Voltage	I	—
9	—	—	—	Not Occupied	—	—
10	1.5	RD/BN	4240	Battery Positive Voltage	I	—
11 - 14	—	—	—	Not Occupied	—	—
15	0.5	VT/GY	539	Run/Crank Ignition 1 Voltage	II	—
16 - 17	—	—	—	Not Occupied	—	—
18	0.5	RD/WH	2740	Battery Positive Voltage	I	—
19	—	—	—	Not Occupied	—	—
20	1.5	RD/WH	1040	Battery Positive Voltage	I	—
21 - 24	—	—	—	Not Occupied	—	—
25	0.35 0.5	RD/VT RD/VT	3340 3340	Battery Positive Voltage Battery Positive Voltage	I	— —
26	0.35	RD/WH	640	Battery Positive Voltage	I	—

X51L Fuse Block - Instrument Panel Left X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27	—	—	—	Not Occupied	—	—
28	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage	I	—
29 - 34	—	—	—	Not Occupied	—	—
35	0.5	RD/GY	2840	Battery Positive Voltage	I	—
36	—	—	—	Not Occupied	—	—
37	0.5	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	—
38	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	I	—
39 - 42	—	—	—	Not Occupied	—	—
43	0.35	YE	6812	Out of Park Signal	II	—
44	0.75	BK	1850	Ground	II	—

X51L Fuse Block - Instrument Panel Left X3



3240104

Connector Part Information

Harness Type: Headliner
OEM Connector: 15547106
Service Connector: 13597270
Description: 20-Way F 1.5, 2.8 OCS Series (BK)

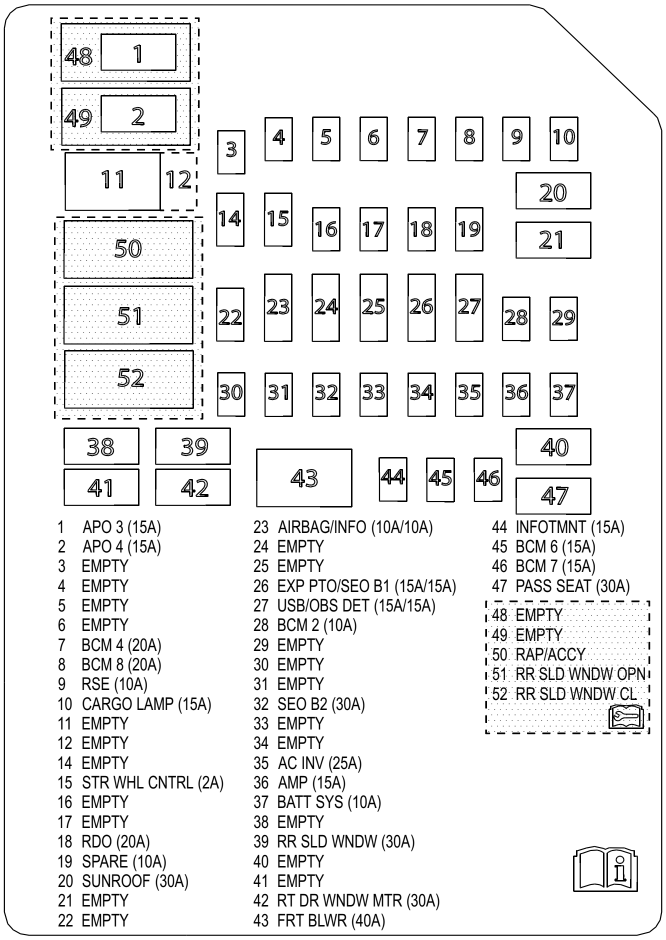
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X51L Fuse Block - Instrument Panel Left X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 10	—	—	—	Not Occupied	—	—
11	0.35	VT/YE	43	Accessory Ignition Voltage	I	—
12	0.5	RD/YE	240	Battery Positive Voltage	II	—
13	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	II	—
14	0.35	VT/BK	1139	Run/Crank Ignition 1 Voltage	I	—
15 - 20	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right Label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1	APO 3 (15A)
2	APO 4 (15A)
3	EMPTY
4	EMPTY
5	EMPTY
6	EMPTY
7	BCM 4 (20A)
8	BCM 8 (20A)
9	RSE (10A)
10	CARGO LAMP (15A)
11	EMPTY
12	EMPTY
14	EMPTY
15	STR WHL CNTRL (2A)
16	EMPTY
17	EMPTY
18	RDO (20A)
19	SPARE (10A)
20	SUNROOF (30A)
21	EMPTY
22	EMPTY
23	AIRBAG/INFO (10A/10A)
24	EMPTY
25	EMPTY
26	EXP PTO/SEO B1 (15A/15A)
27	USB/OBS DET (15A/15A)
28	BCM 2 (10A)
29	EMPTY
30	EMPTY
31	EMPTY
32	SEO B2 (30A)
33	EMPTY
34	EMPTY
35	AC INV (25A)
36	AMP (15A)
37	BATT SYS (10A)
38	EMPTY
39	RR SLD WNDW (30A)
40	EMPTY
41	EMPTY
42	RT DR WNDW MTR (30A)
43	FRT BLWR (40A)
44	INFOTMNT (15A)
45	BCM 6 (15A)
46	BCM 7 (15A)
47	PASS SEAT (30A)
48	EMPTY
49	EMPTY
50	RAP/ACCY
51	RR SLD WNDW OPN
52	RR SLD WNDW CL

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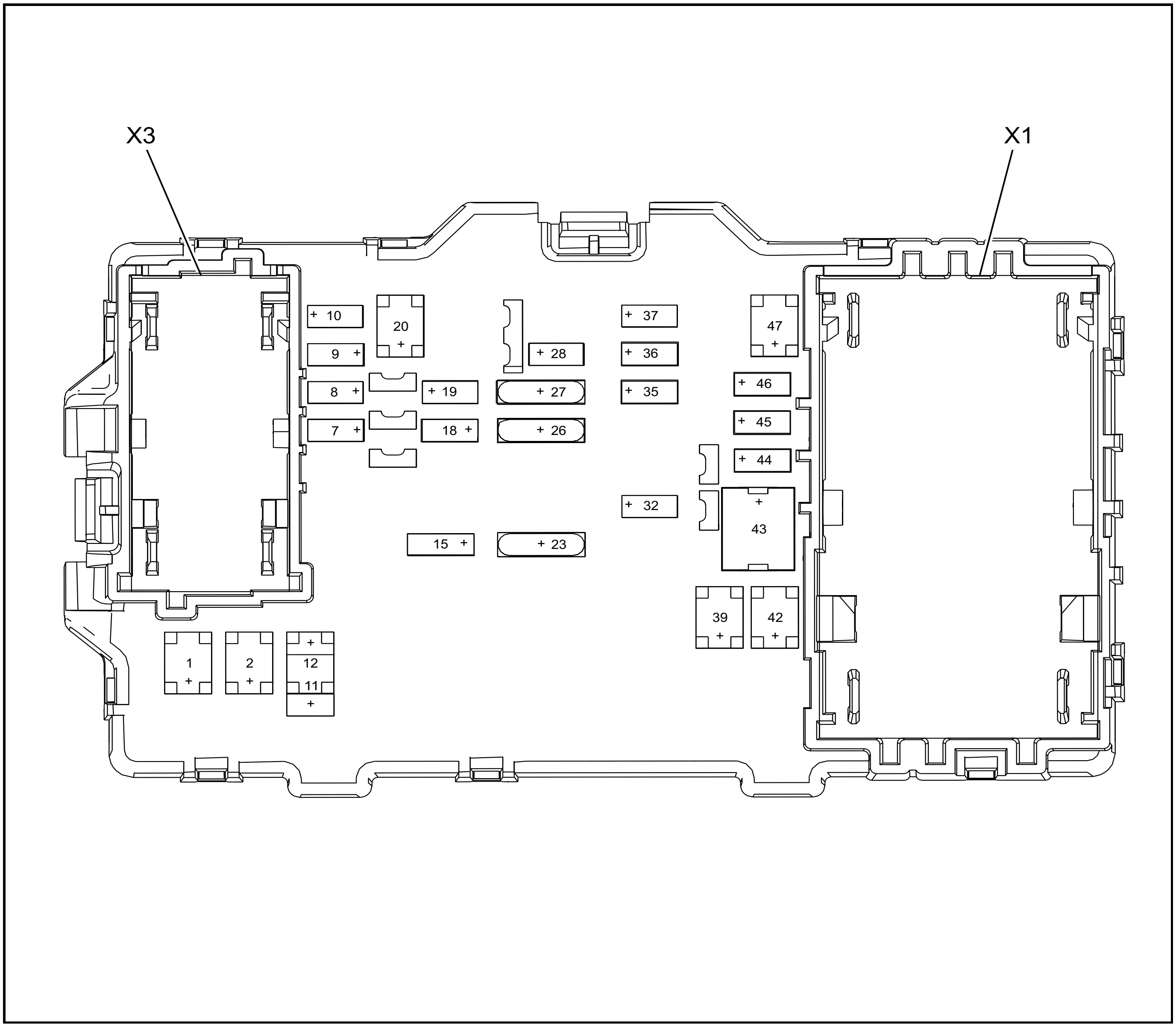
X51R Fuse Block - Instrument Panel Right Top View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X51R Fuse Block – Instrument Panel Right Label Usage (Fuses)

No.	Device Label Name	Device Assigned Name	Rating	Description
1	APO 3	F1DR	15A	• X80D Accessory Power Receptacle-Center Seat Bin (D07) • X80E Accessory Power Receptacle-Center Seat (except D07)
2	APO 4	F2DR	15A	• X80L Accessory Power Receptacle − Center Console Rear (D07) • X80D Accessory Power Receptacle − Center Console Compartment (except D07)
3	EMPTY	—	—	• Not Used
4	EMPTY	—	—	• Not Used
5	EMPTY	—	—	• Not Used
6	EMPTY	—	—	• Not Used
7	BCM 4	F7DR	20A	• K9 Body Control Module

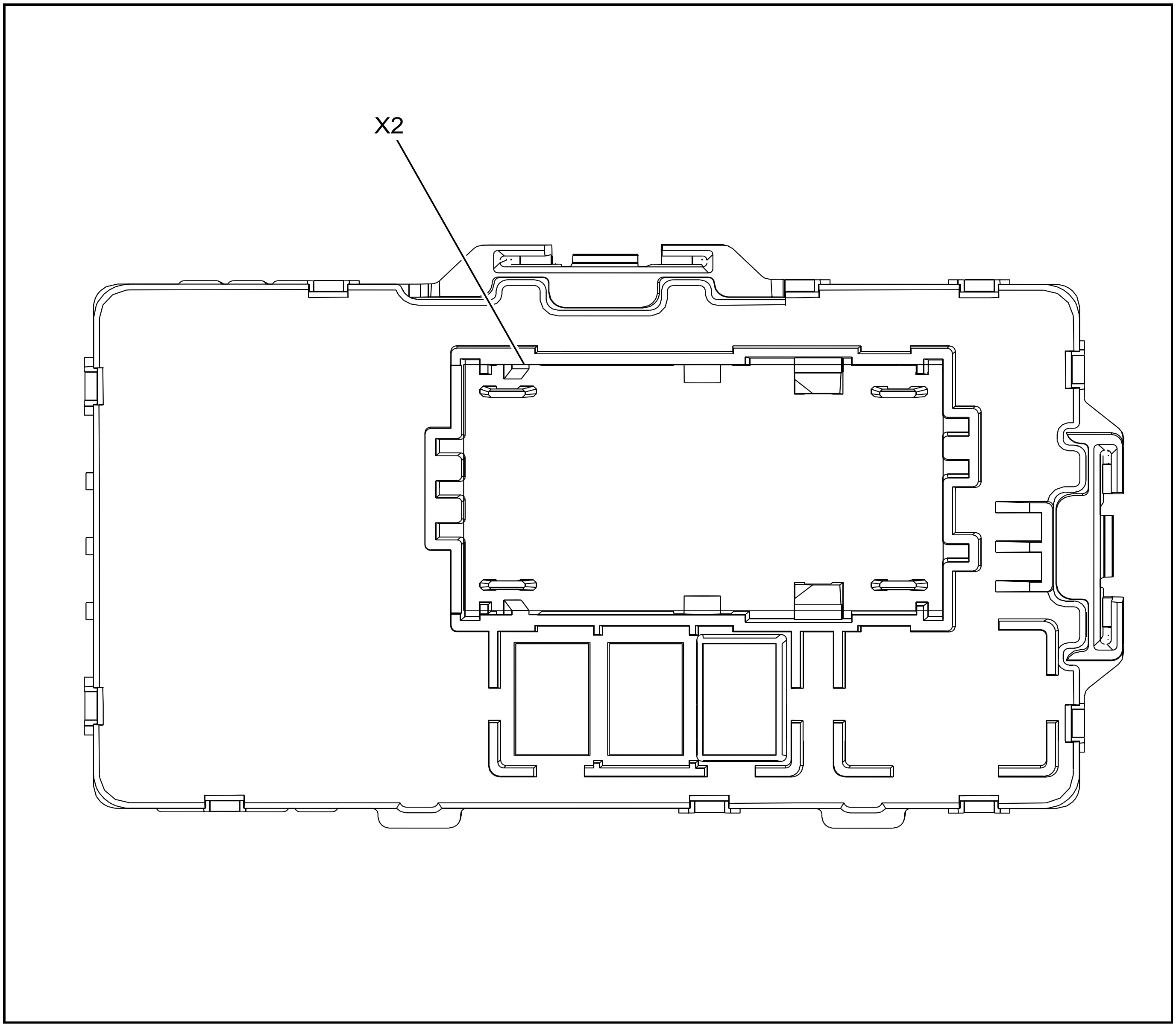
X51R Fuse Block – Instrument Panel Right Label Usage (Fuses) (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
8	BCM 8	F8DR	20A	• K9 Body Control Module
9	RSE	F9DR	10A	• P22A Video Display-2nd Row (U42)
10	CARGO LAMP	F10DR	15A	• E6 Center High Mounted Stop Lamp • E33L Cargo Lamp − Left (except E29) • E33R Cargo Lamp − Right (except E29) • E70D Outside Rearview Mirror Cargo Lamp − Driver (DPN/DQS) • E70P Outside Rearview Mirror Cargo Lamp − Passenger (DPN/DQS)
11	EMPTY	F11DR	—	• Not Used
12	EMPTY	F12DR	—	• Not Used
14	EMPTY	F14DR	—	• Not Used
15	STR WHL CNTRL	F15DR	2A	• S70L Steering Wheel Controls-Left • S70R Steering Wheel Controls Switch-Right
16	EMPTY	F16DR	—	• Not Used
17	EMPTY	F17DR	—	• Not Used
18	RDO	F18DR	20A	• A11 Radio • A33 Media Disc Player (TG5/U42) • K74 Human Machine Interface Control (IO5/IO6) • X82 Audio/Video Input Adapter (U42),X83 Auxiliary Audio Input • X92 USB Receptacle (D07)
19	SPARE	F19DR	10A	• Not Used
20	SUNROOF	F20DR	30A	• M69 Sunroof Motor (CF5) • KR58 Roof Beacon Relay (TRW)
21	EMPTY	F21DR	—	• Not Used
22	EMPTY	F22DR	—	• Not Used
23	AIRBAG/INFO	F23DR	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module • K73 Telematics Communication Interface Control Module (UE1) • K85 Passenger Presence Module
24	EMPTY	F24DR	—	• Not Used
25	EMPTY	F25DR	—	• Not Used
26	EXP PTO/SEO B1	F26DR	15A	• X191 (PTO) • K44 Power Take− Off Control Module (PTO)
27	USB/OBS DET	F27DR	15A	• K41 Front and Rear Parking Assist Control Module • K109 Frontview Camera Module • X83 Auxiliary Audio Input
28	BCM 2	F28DR	10A	• K9 Body Control Module
29	EMPTY	F29DR	—	• Not Used
30	EMPTY	F30DR	—	• Not Used
31	EMPTY	F31DR	—	• Not Used
32	SEO B2	F32DR	30A	• X61A Junction Block-Instrument Panel (except E29)
33	EMPTY	F33DR	—	• Not Used
34	EMPTY	F34DR	—	• Not Used
35	AC INV	F35DR	25A	• T1 Accessory DC/AC Power Inverter Module (KI4/KI5)

X51R Fuse Block – Instrument Panel Right Label Usage (Fuses) (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
36	AMP	F36DR	30A	• T3 Audio Amplifier (UQA/UQG)
37	SPARE	F37DR	10A	• Not Used
38	EMPTY	F38DR	—	• Not Used
39	RR SLD WNDW	F39DR	30A	• KR8A Sliding Rear Window Close relay • KR8B Sliding Rear Window Open Relay
40	EMPTY	F40DR	—	• Not Used
41	EMPTY	F41DR	—	• Not Used
42	RT DR WNDW MTR	F42DR	30A	• S79P Window Switch-Passenger (A31) • S79RR window Switch-Right Rear (Crew Cab/ Extended Cab)
43	FRT BLWR	F43DR	40A	• M8 Blower Motor
44	INFOTMNT	F44DR	15A	• A11 Radio (IOB)
45	BCM 6	F45DR	15A	• K9 Body Control Module
46	BCM 7	F46DR	15A	• K9 Body Control Module
47	PASS SEAT	F47DR	30A	• S64P Seat Adjuster Switch-Passenger (A95/ AN3/B3F)

X51R Fuse Block - Instrument Panel Right Bottom View



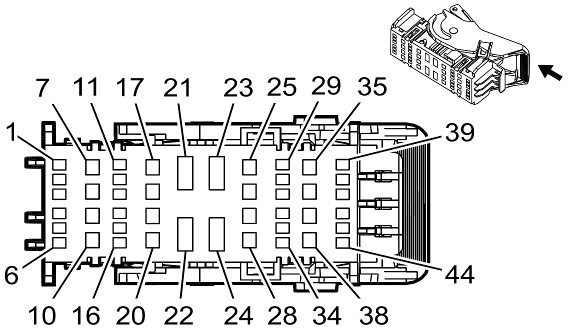
X51R Fuse Block – Instrument Panel Right Label Usage (Relays)

No.	Device Label Name	Device Assigned Name	Rating	Description
48	EMPTY	—	—	• Not Used
49	EMPTY	—	—	• Not Used
50	RAP/ACCY	KR76B Retained Accessory Power Relay 2	—	• F1DR • F12DR
51	RR SLD WNDW OPN	KR8B Sliding Rear Window Open Relay	—	• M63 Sliding Rear Window Motor
52	RR SLD WNDW CL	KR8A Sliding Rear Window Close Relay	—	• M63 Sliding Rear Window Motor
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR112 Cargo Lamp Relay	—	• F9DR

X51R Fuse Block – Instrument Panel Right Label Usage (Relays) (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
—	—	KR113 Child Security Lock Disable Relay	—	• A23LR Door Latch Assembly-Left Rear • A23RR Door Latch Assembly-Right Rear
—	—	KR114 Door Dead Lock Relay	—	• A23D Door Latch Assembly-Driver • A23 LR Door Latch Assembly-Left Rear • A23P Door Latch Assembly-Passenger • A23RR Door Latch Assembly-Right Rear

X51R Fuse Block - Instrument Panel Right X1



3240121

Connector Part Information

Harness Type: Body
OEM Connector: 13967689
Service Connector: 19329457
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
II	13575718	J-35616-44 (YE)	J-38125-558	Not Available	Not Available	Not Available	Not Available
III	19301751	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

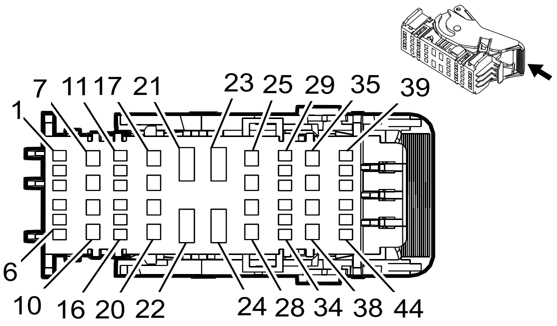
X51R Fuse Block - Instrument Panel Right X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5 0.75	GY GY	295 295	Door Lock Actuator Lock Control Door Lock Actuator Lock Control	III III	EXTENDED CAB/CREW CAB REGULAR CAB
2	1.5	WH/BU	3266	Child Security Lock Motor Lock Control	III	—
3	0.35	VT/YE	3267	Child Security Lock Relay Control	V	—
4	1.5	GY/GN	3271	Door Lock Control 2	III	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY/VT	755	RAP Relay Coil Control	V	—
7 - 8	—	—	—	Not Occupied	—	—
9	2.5	GY/GN	5441	Endgate Window Regulator Down Signal	IV	—
10	2.5	YE/BU	5442	Endgate Window Regulator Up Signal	IV	—
11	—	—	—	Not Occupied	—	—
12	0.75	RD/BU	4540	Battery Positive Voltage	V	—
13	0.75	RD/VT	2640	Battery Positive Voltage	V	—

X51R Fuse Block - Instrument Panel Right X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	—	—	—	Not Occupied	—	—
15	0.5	VT/GY	709	Left Park Lamp Control	V	—
16	0.35 0.5	RD/GN RD/GN	4440 4440	Battery Positive Voltage Battery Positive Voltage	V V	— —
17	—	—	—	Not Occupied	—	—
18	1.5	VT/YE	143	Accessory Ignition Voltage	IV	—
19	2.5	RD/WH	1340	Battery Positive Voltage	IV	—
20	2.5	RD/WH	1340	Battery Positive Voltage	IV	—
21	6	RD/GN	242	Battery Positive Voltage	II	—
22	4	RD/VT	542	Battery Positive Voltage	I	—
23	—	—	—	Not Occupied	—	—
24	6	RD/GY	142	Battery Positive Voltage	II	—
25 - 26	—	—	—	Not Occupied	—	—
27	0.75	RD/VT	340	Battery Positive Voltage	IV	—
28	—	—	—	Not Occupied	—	—
29	1.5	BU/WH	195	Door Lock Control	III	—
30 - 32	—	—	—	Not Occupied	—	—
33	0.75	RD/WH	3440	Battery Positive Voltage	V	—
34	0.75	RD/GN	5140	Battery Positive Voltage	V	—
35 - 36	—	—	—	Not Occupied	—	—
37	2.5	RD/YE	3740	Battery Positive Voltage	IV	—
38	2.5	RD/BN	1440	Battery Positive Voltage	IV	—
39	—	—	—	Not Occupied	—	—
40	0.75	GY	5911	Door Lock Actuator Lock Control 2	V	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.75	RD/GN	3140	Battery Positive Voltage	V	—
44	0.5	RD/BN	2940	Battery Positive Voltage	V	—

X51R Fuse Block - Instrument Panel Right X2



3240120

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13967690
Service Connector: 19329458
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
II	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

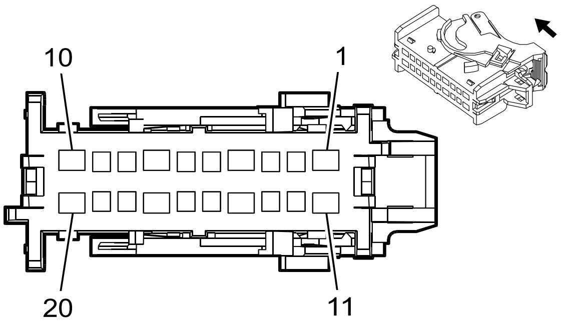
X51R Fuse Block - Instrument Panel Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GN	1540	Battery Positive Voltage	III	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BN/WH	1429	Standing Lamp Relay Control	III	—
5	0.5	BK	1050	Ground	III	—
6	—	—	—	Not Occupied	—	—
7	0.75	RD/VT	4040	Battery Positive Voltage	II	—
8	0.75	RD/BU	2540	Battery Positive Voltage	II	—
9	—	—	—	Not Occupied	—	—
10	1.5	VT/YE	243	Accessory Ignition Voltage	II	—
11	0.75	WH/VT	1430	Exterior Courtesy Lamp Control	III	—
12 - 15	—	—	—	Not Occupied	—	—
16	0.35	RD/YE	3040	Battery Positive Voltage	III	—
17	1 0.75	RD/VT RD/VT	340 340	Battery Positive Voltage Battery Positive Voltage	II II	(IO4/IO5/IO6)/ (IO3+TG5) IO3-TG5
18 - 21	—	—	—	Not Occupied	—	—
22	2.5	BK	1050	Ground	I	—
23 - 28	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
29	0.5	RD/BN	2240	Battery Positive Voltage	III	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.35	YE/VT	6191	Power Sliding Window Switch Open Signal	III	—
33	0.35	WH	6192	Power Sliding Window Switch Close Signal	III	—
34	0.35	RD/BU	3240	Battery Positive Voltage	III	—
35	2.5	RD/GY	4140	Battery Positive Voltage	II	—
36 - 37	—	—	—	Not Occupied	—	—
38	1.5	RD/YE	2340	Battery Positive Voltage	II	—
39 - 41	—	—	—	Not Occupied	—	—
42	0.75	RD/VT	340	Battery Positive Voltage	III	—
43 - 44	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right X3



3243003

Connector Part Information

Harness Type: RH A Pillar
OEM Connector: 15547107
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series (GY)

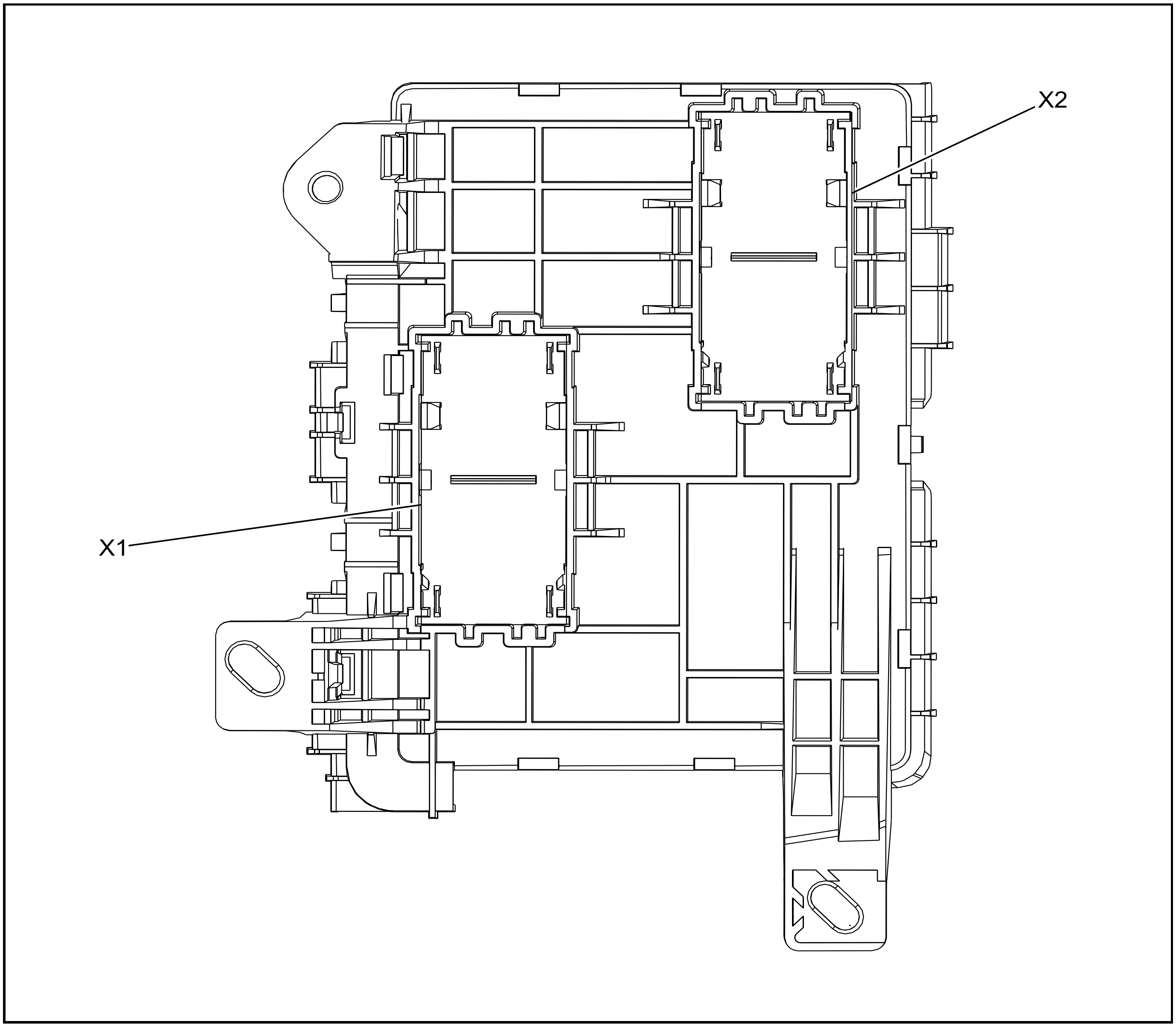
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X51R Fuse Block - Instrument Panel Right X3

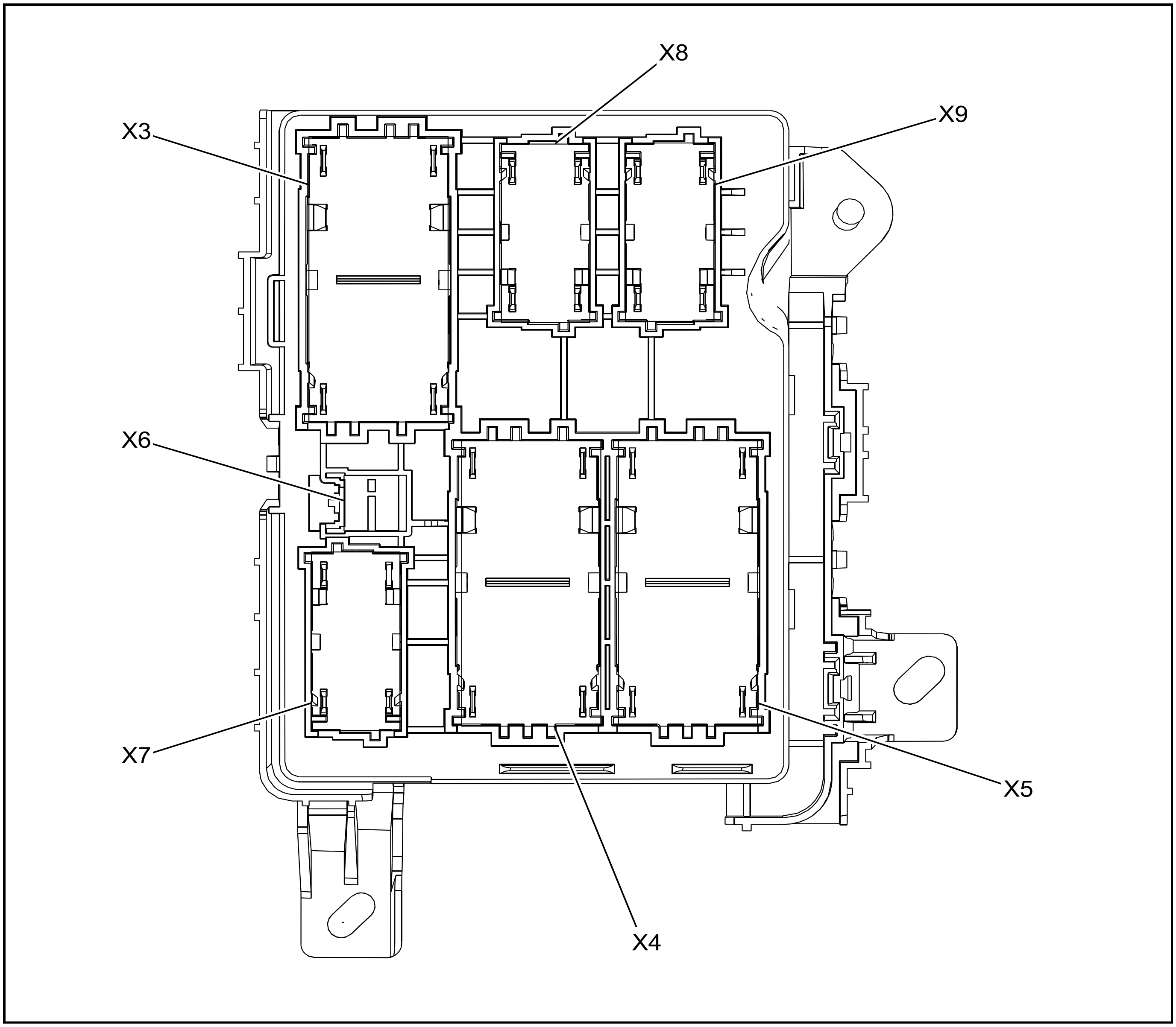
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/GN	3140	Battery Positive Voltage	II	—
2 - 7	—	—	—	Not Occupied	—	—
8	0.5	VT/GY	709	Left Park Lamp Control	I	—
9	—	—	—	Not Occupied	—	—
10	0.5 2.5	BK BK	1050 1050	Ground Ground	III III	— —
11 - 20	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel Top View



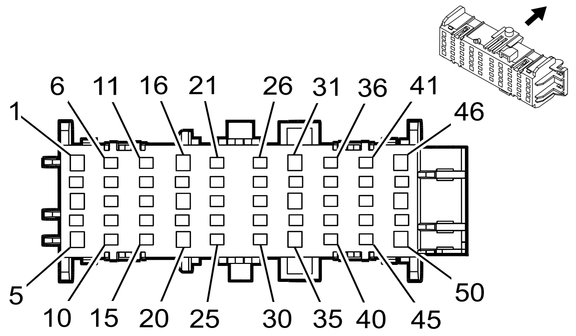
3634092

X61A Junction Block - Instrument Panel Bottom View



3634093

X61A Junction Block - Instrument Panel X1



3240131

Connector Part Information

Harness Type: Body
OEM Connector: 33114819
Service Connector: 19301798
Description: 50-Way F 1.5, 2.8 OCS Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

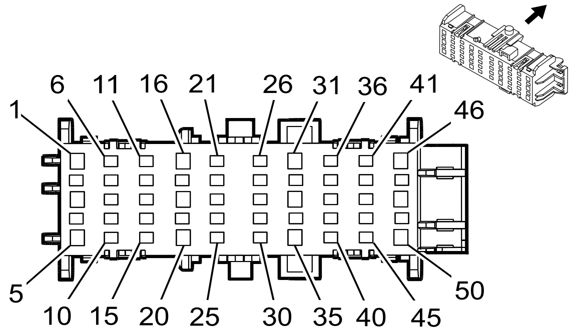
X61A Junction Block - Instrument Panel X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	GY/BK	1570	Front Axle Actuator Control	II	—
3 - 10	—	—	—	Not Occupied	—	—
11	0.35	GY/GN	2555	Rear Park Assist Disable Signal	II	—
12 - 15	—	—	—	Not Occupied	—	—
16	2.5	BU	965	—	I	—
17	0.75	WH/VT	1430	Exterior Courtesy Lamp Control	II	—
18	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
19	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
20	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
21	0.5	RD/WH	961	—	II	—
22	0.35	VT	185	Low Washer Fluid Indicator Control	II	—
23	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	II	—
24	0.5	BN	7634	Integrated Trailer Brake Controller Redundant Manual Apply Signal	II	—
25	0.35	GY	5697	Child Lockout Indicator Control	II	—
26	0.5	BU/RD	7632	Integrated Trailer Brake Controller Switch 5V Reference	II	—
27	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	II	—

X61A Junction Block - Instrument Panel X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	II	—
29	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	II	—
30	0.5	GN/GY	963	—	II	—
31	2.5	GY/BK	966	—	I	—
32	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
33	0.35	VT/BN	300	Run Ignition 3 Voltage	I	—
34	0.5	YE/WH	962	—	II	—
35	2.5	YE/BN	967	—	I	—
36	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	II	—
37	—	—	—	Not Occupied	—	—
38	0.5	WH/BU	964	—	II	—
39	1	BU/VT	1134	Park Brake Switch Signal	II	—
40	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
41	0.5	GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	II	—
42	0.35	GN/GY	5286	Adjustable Pedal Switch Forward Signal	II	—
43	—	—	—	Not Occupied	—	—
44	0.5	WH/BU	3691	Trailer Brake Apply Signal	II	—
45	0.35	GN/BN	5852	Rear Park Assist LED Disable Signal	II	—
46	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage	I	—
47	0.5	WH	6816	Indicator Dimming Control	II	—
48	2.5	RD/GN	968	—	I	—
49	0.35	YE/WH	816	Brake Transmission Shift Interlock Solenoid Control	II	—
50	2.5	BK	2550	Ground	I	—

X61A Junction Block - Instrument Panel X2



3240130

Connector Part Information

Harness Type: Body
OEM Connector: 33115109
Service Connector: 19329464
Description: 50-Way F 1.5, 2.8 OCS Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575543	J-35616-35 (VT)	J-38125-12A	1326030-8	Lear 17	B	F
II	19301751	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
IV	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

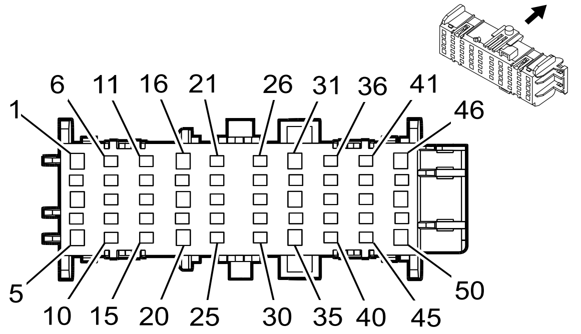
X61A Junction Block - Instrument Panel X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	4	RD/GY	1342	Battery Positive Voltage	I	—
4	0.35	BU	2307	Passenger Air Bag On Indicator Control	IV	—
5	0.5	RD/GN	3140	Battery Positive Voltage	III	—
6	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	IV	—
7	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	IV	—
8	0.35	WH/RD	6207	Memory Sensor High Reference	IV	—
9	0.35	BK/YE	1691	Automatic Day/Night Mirror Low Reference	IV	—
10	0.35	YE/WH	1690	Automatic Day/Night Mirror Signal	IV	—
11	0.35	BU	5952	Adjustable Pedal Position Sensor Brake Signal	IV	—
12	1.5 0.75	YE YE	5129 5129	Adjustable Pedal Actuator Rearward Control Adjustable Pedal Actuator Rearward Control	II IV	A45 -A45
13 - 14	—	—	—	Not Occupied	—	—
15	0.35	GN/WH	24	Backup Lamp Control	IV	—
16	2.5	YE/BN	1569	Transfer Case Lock Solenoid Control	III	—
17	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	4	BK	550	Ground	I	—
19	0.35	VT/WH	5234	Passenger Seat Belt Indicator Control	IV	—
20	—	—	—	Not Occupied	—	—
21	1.5 0.75	GN/VT GN/VT	5130 5130	Adjustable Pedal Actuator Forward Control Adjustable Pedal Actuator Forward Control	II IV	A45 -A45
22	0.35	BK/GY	6206	Memory Sensor Low Reference	IV	—
23	0.5 0.75	WH/BN WH/BN	6815 6815	Inadvertent Power Control Inadvertent Power Control	IV I	-E29-ZYD ZYD-E29
24	0.35	GN	2308	Passenger Air Bag Off Indicator Control	IV	—
25	—	—	—	Not Occupied	—	—
26	0.35	BU/GY	7473	Incremental Encoder Impulse Signal	IV	—
27	0.35	VT	7476	Incremental Encoder Sensor Low Reference	IV	—
28	—	—	—	Not Occupied	—	—
29	0.5	GY	157	Interior Lamp Control	IV	—
30	0.35	GY	156	Courtesy Lamp Switch Signal	IV	—
31	4	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	I	—
32	0.35	YE	7474	Incremental Encoder Direction Signal	IV	—
33	0.5	VT/GY	1054	Stop Lamp Control	III	—
34	—	—	—	Not Occupied	—	—
35	2.5	RD/GN	242	Battery Positive Voltage	III	—
36	0.35	WH/GN	7475	Incremental Encoder Sensor 8V Reference	IV	—
37	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	IV	—
38	0.35	VT/YE	5985	Accessory Wakeup Serial Data	IV	—
39 - 43	—	—	—	Not Occupied	—	—
44	0.5	WH/BU	3691	Trailer Brake Apply Signal	IV	—
45	—	—	—	Not Occupied	—	—
46	4	YE/GY	1552	Transfer Case Motor Clockwise Control	I	—
47	0.5	GN/GY	817	Vehicle Speed Signal	IV	—
48	2.5	BU	47	Trailer Auxiliary Control	III	—
49	—	—	—	Not Occupied	—	—
50	0.35	VT/YE	43	Accessory Ignition Voltage	III	—

X61A Junction Block - Instrument Panel X3



3240132

Connector Part Information

Harness Type: Headliner
OEM Connector: 33115112
Service Connector: 19329467
Description: 50-Way F 1.5, 2.8 OCS Series (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

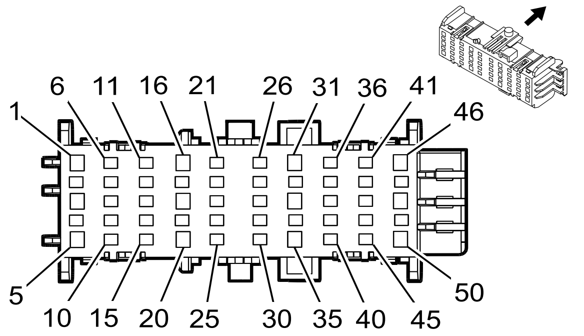
X61A Junction Block - Instrument Panel X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	RD/GN	3140	Battery Positive Voltage	II	—
4	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.75	WH/VT	1430	Exterior Courtesy Lamp Control	III	—
8	0.35	YE/WH	1690	Automatic Day/Night Mirror Signal	III	—
9	0.35	BK/YE	1691	Automatic Day/Night Mirror Low Reference	III	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.35	GN/RD	24	Backup Lamp Control	III	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.35	GN/BK	2515	Keypad Control	III	—
18	—	—	—	Not Occupied	—	—
19	0.35	VT/WH	5234	Passenger Seat Belt Indicator Control	I	—
20	—	—	—	Not Occupied	—	—
21	0.35	GN/BU	2514	Keypad Signal	III	—
22	0.35	YE/BN	2516	Keypad Green LED Control	III	—
23	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.35	GN/RD	2308	Passenger Air Bag Off Indicator Control	I	—
25	0.5 0.5	WH/BN WH/BN	6815 6815	Inadvertent Power Control Inadvertent Power Control	III I	EXTENDED CAB/CREW CAB REGULAR CAB
26	0.35	WH	6192	Power Sliding Window Switch Close Signal	I	—
27	0.5 0.5	YE YE	6817 6817	LED Backlight Dimming Control LED Backlight Dimming Control	I III	EXTENDED CAB/CREW CAB REGULAR CAB
28	0.35	GY/BU	156	Courtesy Lamp Switch Signal	I	—
29	0.5 0.5	GY GY	157 157	Interior Lamp Control Interior Lamp Control	I III	EXTENDED CAB/CREW CAB REGULAR CAB
30 - 31	—	—	—	Not Occupied	—	—
32	0.35	YE/VT	6191	Power Sliding Window Switch Open Signal	I	—
33 - 34	—	—	—	Not Occupied	—	—
35	0.5	VT/GY	1054	Stop Lamp Control	II	—
36	0.35	BN/WH	2517	Keypad Red LED Control	III	—
37 - 40	—	—	—	Not Occupied	—	—
41	0.35	GY/GN	328	Interior Lamp Defeat Switch Signal	I	—
42	0.35 0.35	VT/GN VT/GN	7558 7558	LED Ambient Lighting Control 2 LED Ambient Lighting Control 2	I III	EXTENDED CAB/CREW CAB REGULAR CAB
43 - 44	—	—	—	Not Occupied	—	—
45	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	III	—
46	2.5	BK	1050	Ground	II	—
47	0.35	GN	5060	Low Speed GMLAN Serial Data	III	—
48	—	—	—	Not Occupied	—	—
49	0.35	WH	3152	Lane Departure Warning Indicator Control	III	—
50	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel X4



3240129

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33115111
Service Connector: 19329466
Description: 50-Way F 1.5, 2.8 OCS Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

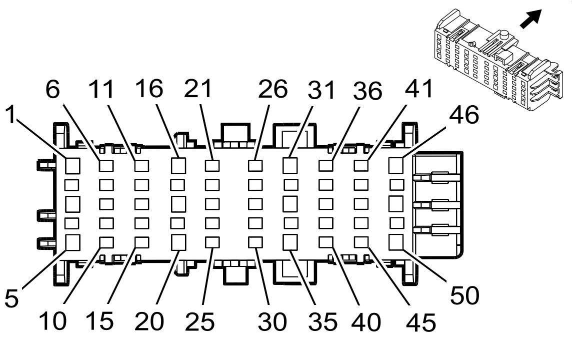
X61A Junction Block - Instrument Panel X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	YE/VT	2516	Keypad Green LED Control	II	—
3	0.35	BK/GN	552	Sensor Low Reference	II	—
4	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
5	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
6	0.5	YE	6817	LED Backlight Dimming Control	II	—
7	0.35	GN/WH	2514	Keypad Signal	II	—
8	0.35	GY/RD	598	5V Reference	II	—
9	0.35	WH/GN	526	Stop Lamp Switch Signal	II	—
10	0.35	BU/YE	1693	Four Wheel Drive Switch Signal	II	—
11	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	II	—
12	0.35	YE/VT	6191	Power Sliding Window Switch Open Signal	II	—
13	0.35	WH	6192	Power Sliding Window Switch Close Signal	II	—
14	0.35	BN	1560	Neutral Indicator Control	II	—
15	0.35	GY/RD	6029	Four Wheel Drive Mode Switch 5V Reference	II	—
16	2.5	BK	1050	Ground	I	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.35	GN/BK	2515	Keypad Control	II	—
20	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.5	VT/GN	7558	LED Ambient Lighting Control 2	II	—
22	0.35	BN/WH	2517	Keypad Red LED Control	II	—
23	0.35	BN/BK	1566	4 HI Indicator Control	II	—
24	0.35	VT/WH	1565	4 LO Indicator Control	II	—
25	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	II	—
26	0.35	WH	3152	Lane Departure Warning Indicator Control	II	—
27	0.35	GY/GN	328	Interior Lamp Defeat Switch Signal	II	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.35	GY/GN	1561	AWD Indicator Control	II	—
31	1.5	RD/YE	2340	Battery Positive Voltage	I	—
32	0.5	BK/WH	1851	Signal Ground	II	—
33	0.75	BK/WH	1851	Signal Ground	I	-E29
34	—	—	—	Not Occupied	—	—
35	2.5	BK/WH	1851	Signal Ground	I	—
36 - 37	—	—	—	Not Occupied	—	—
38	0.5	BK/WH	1851	Signal Ground	II	—
39	0.35	BK/WH	1851	Signal Ground	II	—
40	0.35	GN/BK	1563	2 HI Indicator Control	II	—
41	0.35	BK/WH	1851	Signal Ground	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.35	BK	2550	Ground	II	—
45	0.35	BK	2550	Ground	II	—
46	0.75 0.35	BK BK	2550 2550	Ground Ground	I II	IO4/IO5/IO6 IO5/IO6
47	0.35	BK	2550	Ground	II	—
48	0.5 0.75	BK BK	2550 2550	Ground Ground	II I	CREW CAB/ EXTENDED CAB+U42 TG5
49	0.35	BK	2550	Ground	II	—
50	0.75	BK	2550	Ground	I	—

X61A Junction Block - Instrument Panel X5



3240128

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33115110
Service Connector: 19329465
Description: 50-Way F 1.5, 2.8 OCS Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

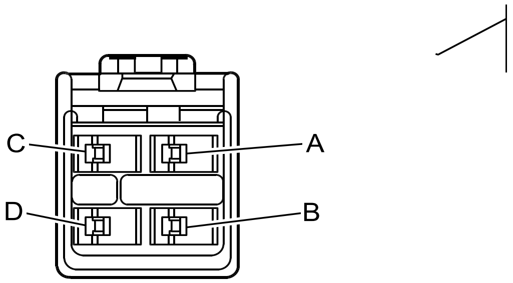
X61A Junction Block - Instrument Panel X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
2	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
3	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
4	0.75	WH/VT	1430	Exterior Courtesy Lamp Control	II	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY	5697	Child Lockout Indicator Control	II	—
7	0.5	BN	7634	Integrated Trailer Brake Controller Redundant Manual Apply Signal	II	—
8	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	II	—
9	0.35	VT	185	Low Washer Fluid Indicator Control	II	—
10	0.5	RD/WH	961	—	II	—
11	0.5	GN/GY	963	—	II	—
12	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	II	—
13	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	II	—
14	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	II	—
15	0.5	BU/RD	7632	Integrated Trailer Brake Controller Switch 5V Reference	II	—
16	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
17	0.5	YE/WH	962	—	II	—
18	0.35	VT/BN	300	Run Ignition 3 Voltage	I	—
19	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
20 - 21	—	—	—	Not Occupied	—	—
22	0.5	BU/VT	1134	Park Brake Switch Signal	II	—
23	0.5	WH/BU	964	—	II	—
24	—	—	—	Not Occupied	—	—
25	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	II	—
26	0.35	GN/BN	5852	Rear Park Assist LED Disable Signal	II	—
27	0.5	WH/BU	3691	Trailer Brake Apply Signal	II	—
28	—	—	—	Not Occupied	—	—
29	0.35	GN/GY	5286	Adjustable Pedal Switch Forward Signal	II	—
30	0.5	GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	II	—
31	0.35	BK	2550	Ground	I	—
32	0.35	YE/WH	816	Brake Transmission Shift Interlock Solenoid Control	II	—
33	—	—	—	Not Occupied	—	—
34	0.5	WH	6816	Indicator Dimming Control	II	—
35 - 36	—	—	—	Not Occupied	—	—
37	0.35	WH	6816	Indicator Dimming Control	II	—
38	0.35	WH	6816	Indicator Dimming Control	II	—
39 - 44	—	—	—	Not Occupied	—	—
45	0.35	GY/GN	2555	Rear Park Assist Disable Signal	II	—
46 - 50	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel X6



1665705

Connector Part Information

Harness Type: Trailer Jumper
OEM Connector: 12194033
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 Metri-Pack Flexlock Series (CR)

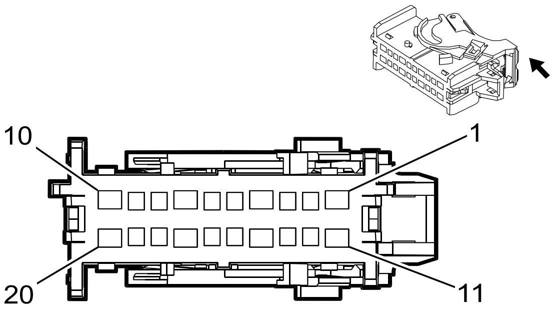
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X61A Junction Block - Instrument Panel X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK	1050	Ground	I	—
B	0.5	WH/BU	3691	Trailer Brake Apply Signal	I	—
C	2.5	RD/GN	242	Battery Positive Voltage	I	—
D	2.5	BU	47	Trailer Auxiliary Control	I	—

X61A Junction Block - Instrument Panel X8



3240104

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15547106
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series (BK)

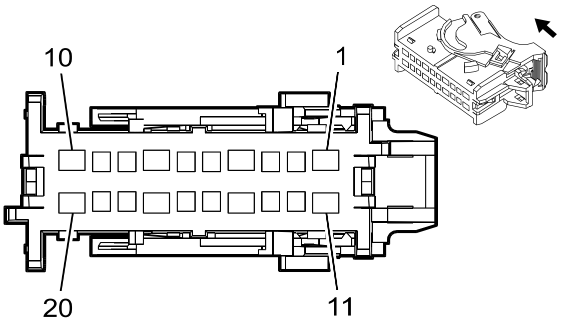
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X61A Junction Block - Instrument Panel X8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 7	—	—	—	Not Occupied	—	—
8	0.5	WH/GN	526	Stop Lamp Switch Signal	I	—
9	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
10	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
11	—	—	—	Not Occupied	—	—
12	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
13	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
14	0.5	WH/RD	6207	Memory Sensor High Reference	II	—
15	0.5	BU	5952	Adjustable Pedal Position Sensor Brake Signal	I	—
16	1.5	YE	5129	Adjustable Pedal Actuator Rearward Control	I	—
17	0.5	BK/GY	6206	Memory Sensor Low Reference	II	—
18	1.5	GN/VT	5130	Adjustable Pedal Actuator Forward Control	I	—
19	0.5	BK/GN	552	Sensor Low Reference	I	—
20	0.5	GY/RD	598	5V Reference	II	—

X61A Junction Block - Instrument Panel X9



3243003

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15547107
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X61A Junction Block - Instrument Panel X9

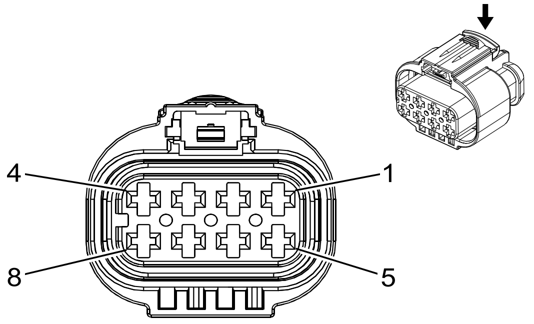
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE/BN	1569	Transfer Case Lock Solenoid Control	II	—
2	0.35	BU/YE	1693	Four Wheel Drive Switch Signal	I	—
3	0.35	GY/RD	6029	Four Wheel Drive Mode Switch 5V Reference	I	—
4	0.35	BN/BK	1566	4 HI Indicator Control	II	—
5	0.35	VT/WH	1565	4 LO Indicator Control	I	—
6	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	I	—
7	0.35	VT/YE	5985	Accessory Wakeup Serial Data	II	—
8	0.35	GN/BK	1563	2 HI Indicator Control	I	—
9	0.35	GY/GN	1561	AWD Indicator Control	I	—
10	0.5	GY/BK	1570	Front Axle Actuator Control	II	—
11	3	RD/GY	1342	Battery Positive Voltage	II	—
12	0.35	BN	1560	Neutral Indicator Control	I	—
13	0.35	VT	7476	Incremental Encoder Sensor Low Reference	I	—
14	3	BK	550	Ground	II	—
15	0.35	BU/GY	7473	Incremental Encoder Impulse Signal	I	—
16	0.35	YE	7474	Incremental Encoder Direction Signal	I	—
17	4	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	II	—
18	0.35	WH/GN	7475	Incremental Encoder Sensor 8V Reference	I	—
19	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	I	—

X61A Junction Block - Instrument Panel X9 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	4	YE/GY	1552	Transfer Case Motor Clockwise Control	II	—

Component Connector End Views

A6C Fuel Pump and Level Sensor Assembly - Primary (L5P)



3749582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180742
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed (L-GY)

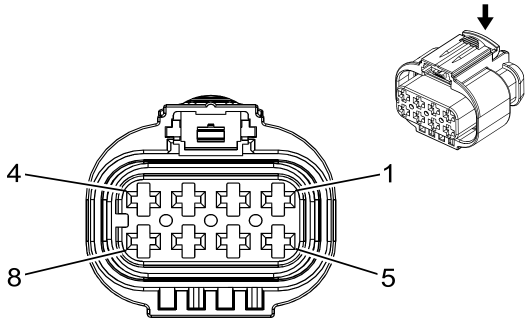
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A6C Fuel Pump and Level Sensor Assembly - Primary (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	120	Fuel Pump Control	I	—
2	2.5	YE/GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
3	2.5	WH/BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
4	0.5	BK	7444	Fuel System Control Module Shield Ground	I	—
5	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
6	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
7 - 8	—	—	—	Not Occupied	—	—

A6C Fuel Pump and Level Sensor Assembly - Primary (L5P+N2L)



3749582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180742
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed (L-GY)

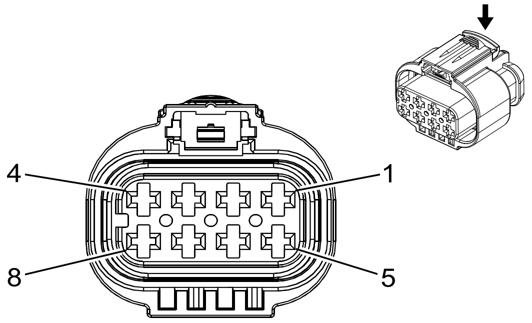
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A6C Fuel Pump and Level Sensor Assembly - Primary (L5P+N2L)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	120	Fuel Pump Control	I	—
2	2.5	YE/GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
3	2.5	WH/BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
4	0.5	BK	7444	Fuel System Control Module Shield Ground	I	—
5	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
6	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
7 - 8	—	—	—	Not Occupied	—	—

A6C Fuel Pump and Level Sensor Assembly - Primary (L5P+N2N)



3749582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180742
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed (L-GY)

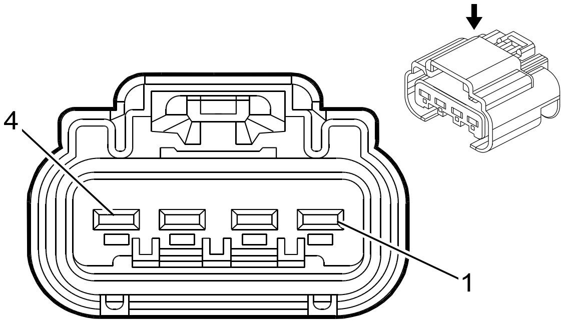
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A6C Fuel Pump and Level Sensor Assembly - Primary (L5P+N2N)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	120	Fuel Pump Control	I	—
2	2.5	YE/GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
3	2.5	WH/BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
4	0.5	BK	7444	Fuel System Control Module Shield Ground	I	—
5	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
6	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
7 - 8	—	—	—	Not Occupied	—	—

A6C Fuel Pump and Level Sensor Assembly - Primary (L96+N2N/N2M)



1962075

Connector Part Information

Harness Type: Chassis
OEM Connector: 13527865
Service Connector: 13587174
Description: 4-Way F 280 GT Series, Sealed (NA)

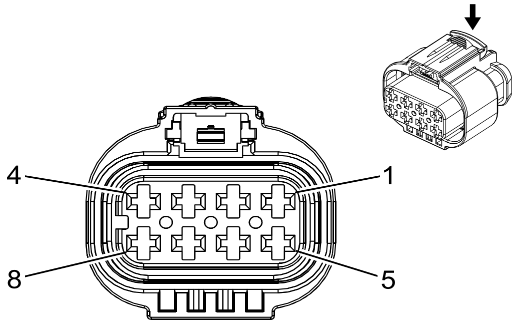
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A6C Fuel Pump and Level Sensor Assembly - Primary (L96+N2N/N2M)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	120	Fuel Pump Control	I	—
2	2.5	BK/GN	1580	Fuel Pump Low Reference	I	—
3	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
4	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—

A6D Fuel Pump and Level Sensor Assembly - Secondary (L5P+N2N)



3749581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180017
Service Connector: 19355165
Description: 8-Way F 2.8 Series, Sealed (BK)

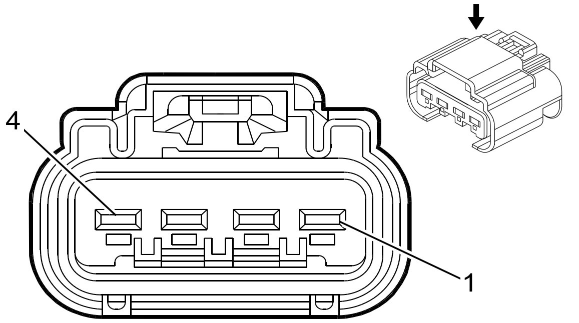
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A6D Fuel Pump and Level Sensor Assembly - Secondary (L5P+N2N)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	2.5	GY	120	Fuel Pump Control	I	—
4	2.5	BK	2150	Ground	I	—
5	0.5	BU/WH	1937	Secondary Fuel Level Sensor Signal	I	—
6	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
7 - 8	—	—	—	Not Occupied	—	—

A6D Fuel Pump and Level Sensor Assembly - Secondary (L96+N2N/N2L)



1962075

Connector Part Information

Harness Type: Chassis
OEM Connector: 13527865
Service Connector: 13587174
Description: 4-Way F 280 GT Series, Sealed (NA)

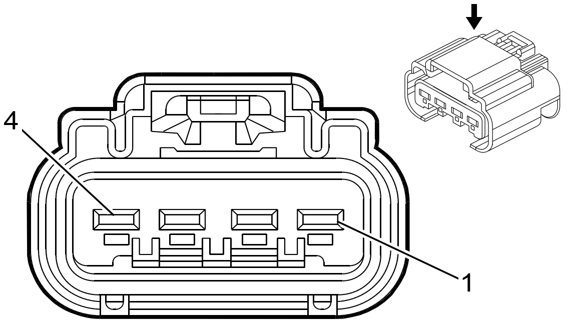
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A6D Fuel Pump and Level Sensor Assembly - Secondary (L96+N2N/N2L)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	120	Fuel Pump Control	I	—
2	2.5 2.5	BK/GN BK	1580 2150	Fuel Pump Low Reference Ground	I I	FPPM -FPPM
3	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
4	0.5 0.5	BU/VT BU/WH	1589 1937	Primary Fuel Level Sensor Signal Secondary Fuel Level Sensor Signal	I I	L96+N2L-N2N N2N+L96

A7 Fuel Pump and Level Sensor Assembly



1962075

Connector Part Information

Harness Type: Chassis
OEM Connector: 13527865
Service Connector: 13587174
Description: 4-Way F 280 GT Series, Sealed (NA)

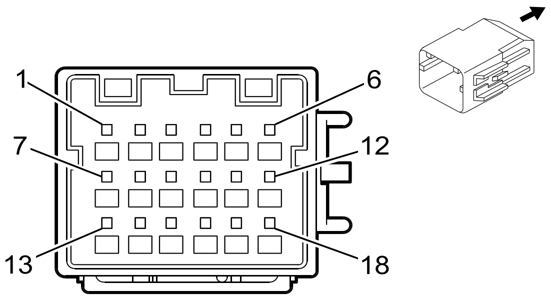
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A7 Fuel Pump and Level Sensor Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	120	Fuel Pump Control	I	—
2	2.5	BK/GN	1580	Fuel Pump Low Reference	I	—
3	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
4	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—

A9A Outside Rearview Mirror - Driver



2907751

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13888973
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way M 0.64 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-65B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

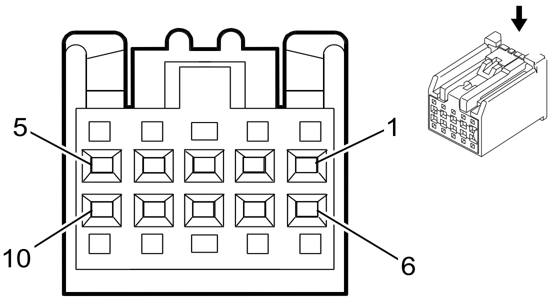
A9A Outside Rearview Mirror - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	GY/WH VT/GY	5996 709	Driver Outside Rear View Mirror Puddle Lamp Control Left Park Lamp Control	I I	DL3 U01+UE1/IO6
2	0.35 0.5	YE/BK WH/VT	1690 1430	Automatic Day/Night Mirror Signal Exterior Courtesy Lamp Control	I I	DL3/DR4 DQS/DPN
3	0.35	BK/BN	3393	Driver Mirror Position Sensor Low Reference	I	—
4	0.5	GY/WH	3411	Driver Mirror Motor Fold Out Control	I	—
5	0.5	BK	1150	Ground	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	WH/YE	3395	Driver Mirror Position Sensor Left (-) Right (+) Signal	I	—
8	0.5	BN/OG	2267	Mirror Heating Element Control	I	—
9	0.5	VT/BU	3390	Driver Mirror Motor Up (+) Down (-) Control	I	—
10	0.5	BN/BK	3389	Driver Mirror Motor Right (+) Left (-) Control	I	—
11	0.5	BK	1150	Ground	I	—
12	0.5	YE/BN	3391	Driver Mirror Motor Common Control	I	—
13	0.5	BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
14	0.35	GY/BN	3394	Driver Mirror Position Sensor Up (+) Down (-) Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	BK/YE	1691	Automatic Day/Night Mirror Low Reference	I	—
17	0.35	VT/RD	3392	Driver Mirror Position Sensor 5V Reference	I	—

A9A Outside Rearview Mirror - Driver (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	0.5	WH/GN	3412	Driver Mirror Motor Fold In Control	I	—

A10 Inside Rearview Mirror



2180211

Connector Part Information

Harness Type: Headliner
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

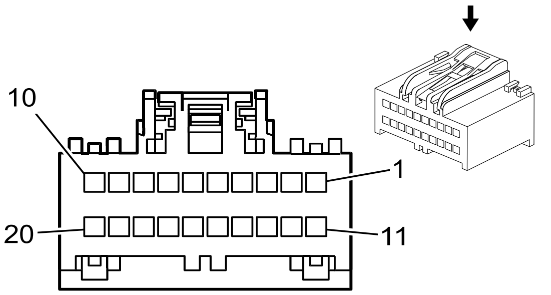
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

A10 Inside Rearview Mirror

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/RD	24	Backup Lamp Control	I	—
2	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	I	—
3	0.35	GN/BU	2514	Keypad Signal	I	—
4	0.35	GN/BK	2515	Keypad Control	I	—
5	0.5	BK	1050	Ground	I	—
6	0.35	YE/BN	2516	Keypad Green LED Control	I	—
7	0.35	BN/WH	2517	Keypad Red LED Control	I	—
8	0.35	BK/YE	1691	Automatic Day/Night Mirror Low Reference	I	—
9	0.35	YE/WH	1690	Automatic Day/Night Mirror Signal	I	—
10	—	—	—	Not Occupied	—	—

A11 Radio X1



1715228

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15491304
Service Connector: 15126710
Description: 20-Way F USCAR 64 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

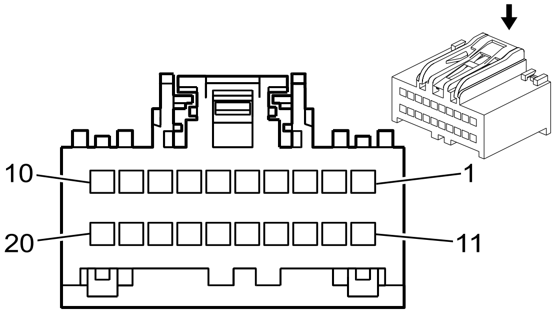
A11 Radio X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	2550	Ground	I	—
2	0.35	GY/BN	2084	Ammeter Signal (+)	I	—
3	0.35	BN	2813	Radio Display Backlight Dimming Control	I	—
4	0.35 0.5	WH/BU GY/GN	6973 1102	Camera Signal 2 Low Speed GMLAN Serial Data #2	I I	IO5/IO6 IOB
5	0.35	GY/YE	6972	Camera Signal 2 +	I	—
6	0.5 0.35 0.35	Bare BK/GY BK/BN	5842 5152 654	Auxiliary Audio Screen 2 Voice Recognition Audio Low Reference Cellular Telephone Microphone Low Reference	I I I	IO5/IO6 IOB+UE1 IOB-UE1
7	0.35 0.35 0.35	BU GY/YE BU	2060 5149 655	Auxiliary Detection Signal Voice Recognition Audio Signal Cellular Telephone Microphone Signal	I I I	IO5/IO6 IOB+UE1 IOB-UE1
8	0.35	VT/WH	2810	Radio Keypad Button Signal	I	IOB
9	0.35 0.35	GY BK/YE	5839 659	Left Auxiliary Audio Signal 2 Cellular Telephone Voice Low Reference	I I	IO5/IO6 IOB
10	0.35 0.35	GN YE	5841 658	Right Auxiliary Audio Signal 2 Cellular Telephone Voice Signal	I I	IO5/IO6 IOB
11	0.75	RD/VT	340	Battery Positive Voltage	I	—
12	—	—	—	Not Occupied	—	—
13	0.5 0.35	GN/BU GN/WH	7532 24	Local Interconnect Network Serial Data Bus 10 Backup Lamp Control	I I	IO5/IO6 IOB
14	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	IO5/IO6

A11 Radio X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
	0.35	WH/BU	6973	Camera Signal 2	I	IOB
15	0.35	GY/YE	6972	Camera Signal 2 +	I	—
16	0.5	Bare	5842	Auxiliary Audio Screen 2	I	—
17	0.35	BU	2060	Auxiliary Detection Signal	I	—
18	0.35	VT	5843	Auxiliary Audio Common Signal	I	—
19	0.35 0.35	BK/YE GY	659 5839	Cellular Telephone Voice Low Reference Left Auxiliary Audio Signal 2	I I	IO5/IO6 IOB
20	0.35 0.35	YE GN	658 5841	Cellular Telephone Voice Signal Right Auxiliary Audio Signal 2	I I	IO5/IO6 IOB

A11 Radio X2 (IOB)



1715226

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15491305
Service Connector: 15126709
Description: 20-Way F USCAR 64 Series (BN)

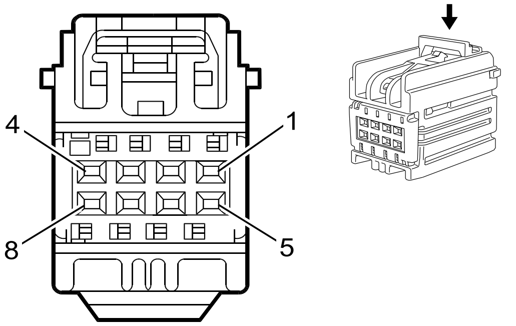
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

A11 Radio X2 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	GY	314	Radio On Signal	I	—
4	0.35	VT/GY	1381	LCD Dimming Signal	I	—
5	0.35	GY/BU	3989	Display Radio Bank Switch Dim Signal	I	—
6	0.35	BN/GN	4502	Video Display Request Signal	I	—
7	0.35	BN/GN	3364	Navigation Display Reset Signal	I	—
8	0.35	BU	4315	Radio Volume Up Signal	I	—
9	0.35	GY/BN	4314	Radio Volume Down Signal	I	—
10	0.75	BK	2550	Ground	I	—
11	0.5	WH	46	Right Rear Speaker Control (+)	I	—
12	0.5	BU/BK	115	Right Rear Speaker Signal (-)	I	—
13	0.5	GN	199	Left Rear Speaker Control (+)	I	—
14	0.5	GN/BK	116	Left Rear Speaker Signal (-)	I	—
15	0.75	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
16	0.75	YE	200	Right Front Speaker Control (+) 1	I	—
17	0.75	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
18	0.75	BU	201	Left Front Speaker Control (+) 1	I	—
19	—	—	—	Not Occupied	—	—
20	0.75	RD/VT	340	Battery Positive Voltage	I	—

A11 Radio X2 (-IOB)



1664573

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13551679
Service Connector: 19115653
Description: 8-Way F YESC Kaizen Series (L-GY)

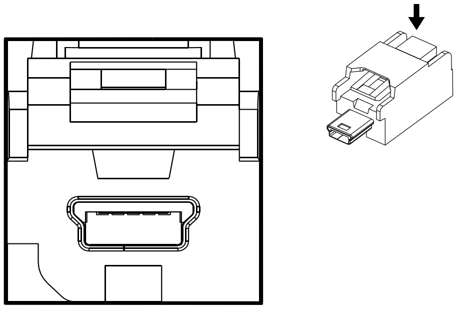
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A11 Radio X2 (-IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
2	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
3	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
4	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	WH/VT	3999	MOST Control	I	—
8	—	—	—	Not Occupied	—	—

A11 Radio X3 (IOB)



3214018

Connector Part Information

Harness Type: Instrument Panel USB
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M USB Cable Connector (GY)

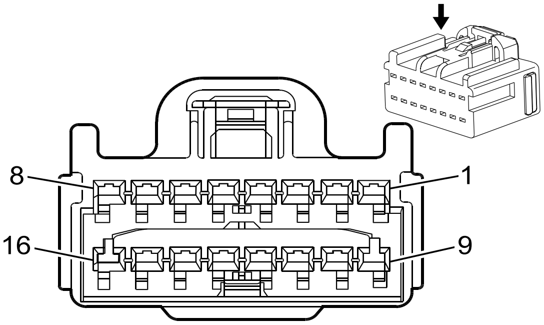
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

A11 Radio X3 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

A11 Radio X3



1592558

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10847013
Service Connector: 89047090
Description: 16-Way F 1.5 Kaizen Series (GN)

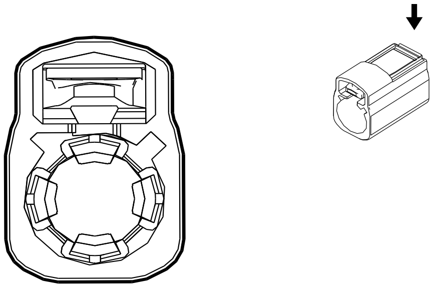
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

A11 Radio X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	201	Left Front Speaker Control (+) 1	I	—
2	0.75	YE	200	Right Front Speaker Control (+) 1	I	—
3	0.5	GN	199	Left Rear Speaker Control (+)	II	—
4	0.5	WH	46	Right Rear Speaker Control (+)	II	—
5 - 7	—	—	—	Not Occupied	—	—
8	0.75	RD/VT	340	Battery Positive Voltage	I	—
9	0.75	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
10	0.75	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
11	0.5	GN/BK	116	Left Rear Speaker Signal (-)	II	—
12	0.5	BU/BK	115	Right Rear Speaker Signal (-)	II	—
13 - 15	—	—	—	Not Occupied	—	—
16	0.75	BK	2550	Ground	I	—

A11 Radio X4



2908476

Connector Part Information

Harness Type: Radio Antenna Jumper COAX
OEM Connector: 12784257
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

A11 Radio X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax	—	(AM/FM) Antenna RF Signal	I	—

A11 Radio X5 (IOB)

—

Connector Part Information

Harness Type: Instrument Panel COAX
OEM Connector: 33233609
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

A11 Radio X5 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax	—	(AM/FM) Antenna RF Signal	I	—

A11 Radio X6 (IO5/IO6 +U2K)

—

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33233609
Service Connector:
Description: 1-Way

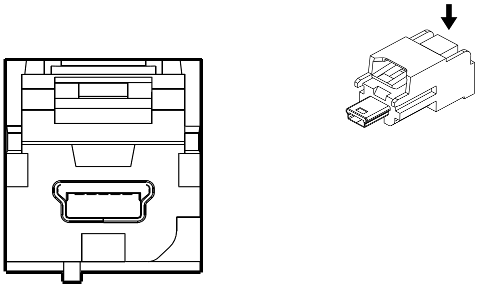
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

A11 Radio X6 (IO5/IO6 +U2K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	COAX	Coax Cable	I	—

A11 Radio X7 (IO3/IOB)



3028814

Connector Part Information

Harness Type: Instrument Panel LVDS
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M LVDS Cable Connector

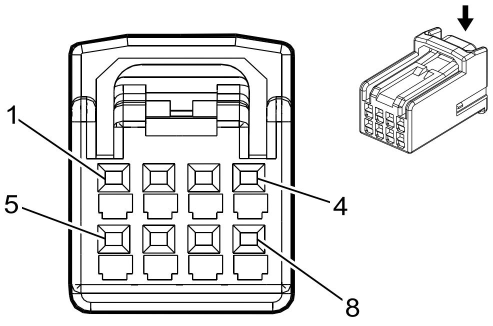
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

A11 Radio X7 (IO3/IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(Infotainment) Infotainment Display Signal	I	—

A14D Seat Lumbar Support Pump - Driver



3635890

Connector Part Information

Harness Type: Driver Back Jumper Harness
OEM Connector: MX34E08SF1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series (GY)

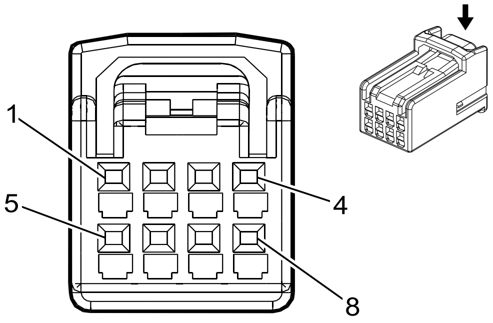
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

A14D Seat Lumbar Support Pump - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/BN	768	Driver Power Seat Lumbar Motor Up Control	I	—
2	0.75	VT	610	Driver Power Seat Lumbar Motor Rearward Control	I	—
3	0.75	YE/BU	767	Driver Power Seat Lumbar Motor Down Control	I	—
4	—	—	—	Not Occupied	—	—
5	0.75	BU	611	Driver Power Seat Lumbar Motor Forward Control	I	—
6 - 8	—	—	—	Not Occupied	—	—

A14P Seat Lumbar Support Pump - Passenger



3635890

Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: MX34E08SF1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series (GY)

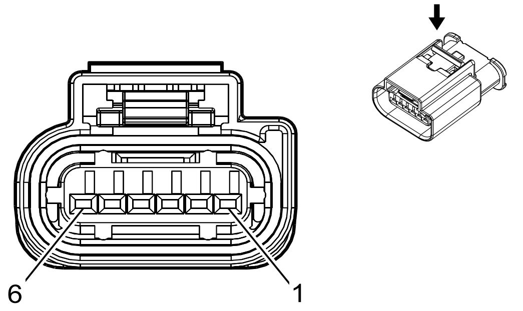
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A14P Seat Lumbar Support Pump - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/YE	793	Passenger Power Seat Lumbar Motor Up Control	I	—
2	0.75	VT	210	Passenger Power Seat Lumbar Motor Rearward Control	I	—
3	0.75	BU/YE	792	Passenger Power Seat Lumbar Motor Down Control	I	—
4	—	—	—	Not Occupied	—	—
5	0.75	BU	211	Passenger Power Seat Lumbar Motor Forward Control	I	—
6 - 8	—	—	—	Not Occupied	—	—

A15 Starter/Generator X1 (HP5)



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 33225994
Service Connector: 19354437
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

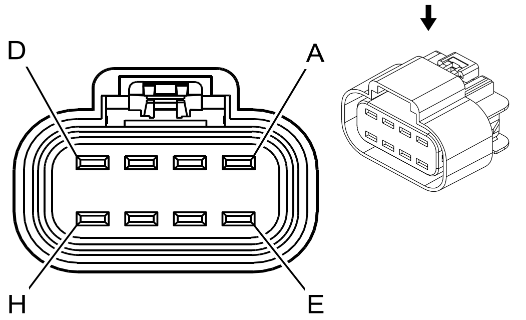
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A15 Starter/Generator X1 (HP5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE	7649	Traction Power Inverter Module Resolver 1 S1 Signal	I	—
2	0.75	BN	7652	Traction Power Inverter Module Resolver 1 S3 Signal	I	—
3	0.75	WH/GN	7648	Traction Power Inverter Module Traction Power Inverter Module Resolver 1 Excitation Signal Negative	I	—
4	0.75	BU	7645	Traction Power Inverter Module Resolver 1 Excitation Signal Positive	I	—
5	0.75	VT/GN	7647	Transmission Traction Power Inverter Module Resolver 1 S2 Signal	I	—
6	0.75	GY	7646	Transmission Traction Power Inverter Module Resolver 1 S4 Signal	I	—

A16 Transfer Case Motor



646372

Connector Part Information

Harness Type: Engine
OEM Connector: 13669205
Service Connector: 19300464
Description: 8-Way F 280 GT Series, Sealed (BK)

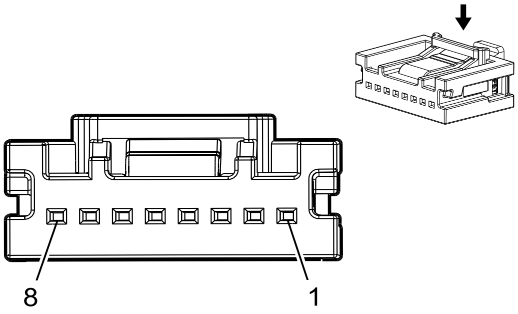
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A16 Transfer Case Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	OG	1552	Transfer Case Motor Clockwise Control	I	—
B	3	RD/GY	1342	Battery Positive Voltage	I	—
C	2.5	YE/BN	1569	Transfer Case Lock Solenoid Control	I	—
D	3	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	I	—
E	0.5	BU/GY	7473	Incremental Encoder Impulse Signal	I	—
F	0.5	YE	7474	Incremental Encoder Direction Signal	I	—
G	0.5	WH/GN	7475	Incremental Encoder Sensor 8V Reference	I	—
H	0.5	VT	7476	Incremental Encoder Sensor Low Reference	I	—

A22 Radio Controls



4017639

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15532151
Service Connector: 19355393
Description: 8-Way F 0.64 Series (BK)

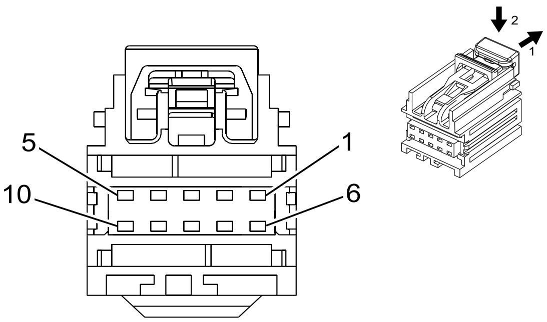
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	EL-35616-58 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A22 Radio Controls

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/BN	3761	Infotainment Regulated Control	I	—
2	0.35	GN/BK	2515	Keypad Control	I	—
3	0.35	BN/GN	3983	Display Radio Bank Switch Signal 2	I	—
4	0.35	GY	314	Radio On Signal	I	—
5	0.35	GY/BU	3989	Display Radio Bank Switch Dim Signal	I	—
6	0.35	BU	4315	Radio Volume Up Signal	I	—
7	0.35	GY/BN	4314	Radio Volume Down Signal	I	—
8	0.35	BK/BN	2518	Keypad Low Reference	I	—

A23D Door Latch Assembly - Driver



4622549

Connector Part Information

Harness Type: Driver Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

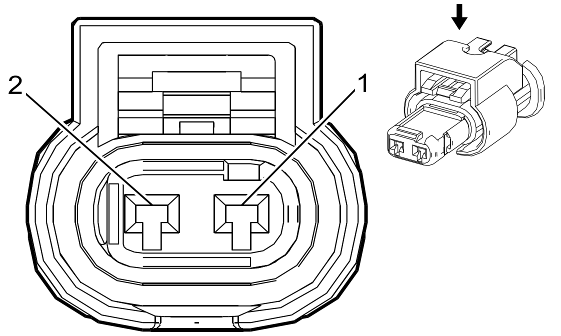
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23D Door Latch Assembly - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	745	Left Front Door Ajar Switch Signal	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK	1150	Ground	I	—
4	0.35	WH/VT	3270	Driver Door Lock Motor Status Signal	I	—
5	0.35	BU/VT	1124	Door Lock Key Switch Unlock Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	GY	5911	Door Lock Actuator Lock Control 2	I	—
8	0.75	BN/BK	294	Door Lock Actuator Unlock Control	I	—
9 - 10	—	—	—	Not Occupied	—	—

A23E Door Latch Assembly - Endgate



2474752

Connector Part Information

Harness Type: Tailgate
OEM Connector: 13927761
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

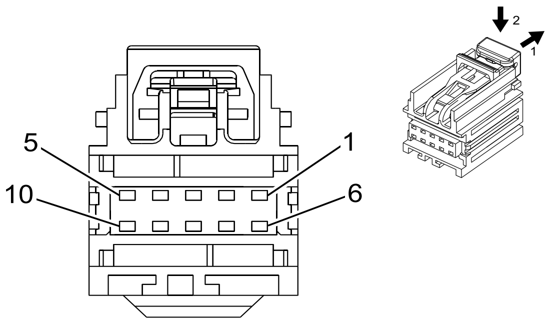
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23E Door Latch Assembly - Endgate

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY	295	Door Lock Actuator Lock Control	I	—
2	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—

A23LR Door Latch Assembly - Left Rear



4622549

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

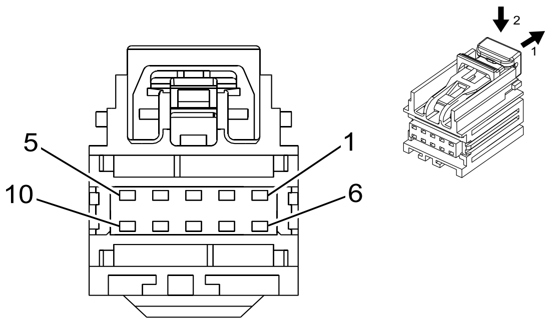
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23LR Door Latch Assembly - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/WH	747	Left Rear Door Ajar Switch Signal	I	—
2	0.35	BN/WH	3269	Child Security Lock Motor Status Signal Left Rear	I	—
3	0.5	BK	1150	Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	GY	295	Door Lock Actuator Lock Control	I	—
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—
9	0.75	WH/BU	3266	Child Security Lock Motor Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A23P Door Latch Assembly - Passenger



4622549

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

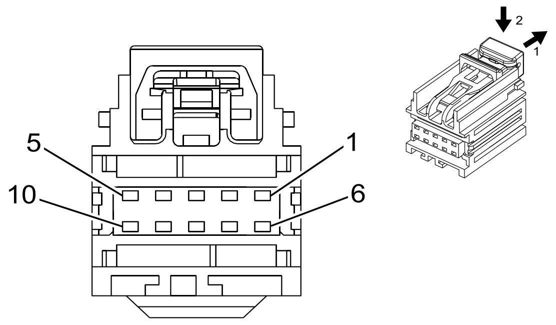
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23P Door Latch Assembly - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GY	746	Right Front Door Ajar Switch Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—
9	0.75	GY	295	Door Lock Actuator Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A23RR Door Latch Assembly - Right Rear



4622549

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

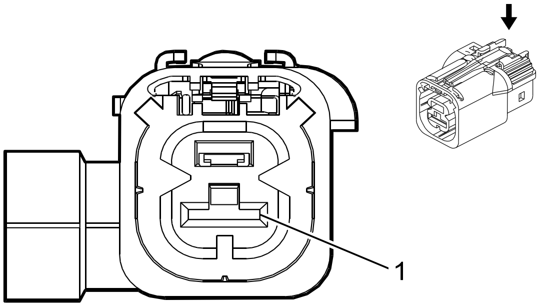
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23RR Door Latch Assembly - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK	1250	Ground	I	—
4	0.35	GY/BK	3268	Child Security Lock Motor Status Signal Right Rear	I	—
5	0.35	GY/WH	748	Right Rear Door Ajar Switch Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	WH/BU	3266	Child Security Lock Motor Lock Control	I	—
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—
9	0.75	GY	295	Door Lock Actuator Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A28 Hybrid/EV Battery Contactor Assembly X1



4213899

Connector Part Information

Harness Type: Negative Battery Cable
OEM Connector: 33119077
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Series (OG)

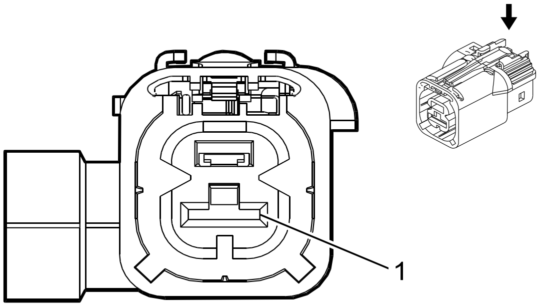
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A28 Hybrid/EV Battery Contactor Assembly X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	12	OG	5084	High Voltage Battery (+)	I	—

A28 Hybrid/EV Battery Contactor Assembly X2 (HP5)



Connector Part Information

Harness Type: High Voltage Battery Positive
OEM Connector: 33119078
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Series (OG)

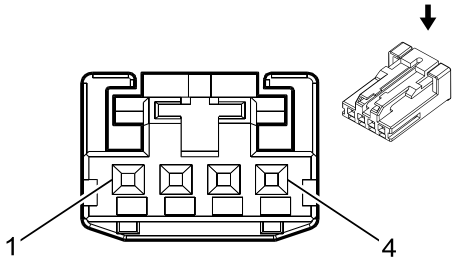
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A28 Hybrid/EV Battery Contactor Assembly X2 (HP5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	12	OG	5084	High Voltage Battery (+)	I	—

A28 Hybrid/EV Battery Contactor Assembly X3



2717162

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 13969166
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

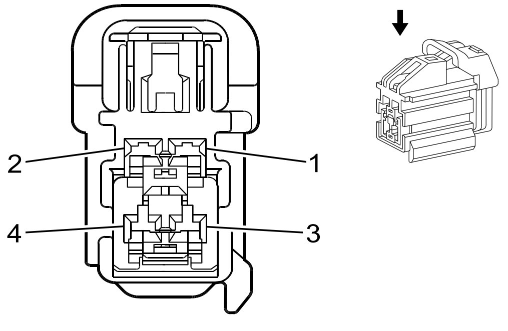
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A28 Hybrid/EV Battery Contactor Assembly X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	VT/RD	2965	High Voltage Battery Current Sensor Voltage Reference	I	—
3	0.35	BK/GY	2963	High Voltage Battery Current Sensor Low Reference	I	—
4	0.35	BU/YE	2962	High Voltage Battery Current Sensor Course Signal	I	—

A28 Hybrid/EV Battery Contactor Assembly X4



Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 10846820
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F YESC Kaizen Series (L-GY)

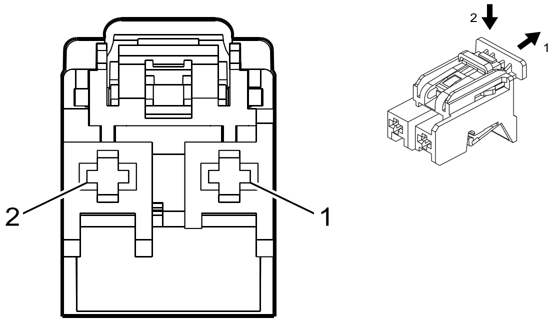
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A28 Hybrid/EV Battery Contactor Assembly X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	5138	Precharge Relay	I	—
2	0.35	BK	150	Ground	I	—
3	0.35	VT/GY	3961	High Voltage Battery (-) Relay Control	I	—
4	0.35	BN/GN	3959	High Voltage Battery 1 (+) Relay Control	I	—

A28 Hybrid/EV Battery Contactor Assembly X5



4213898

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33183082
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 MCP Series (OG)

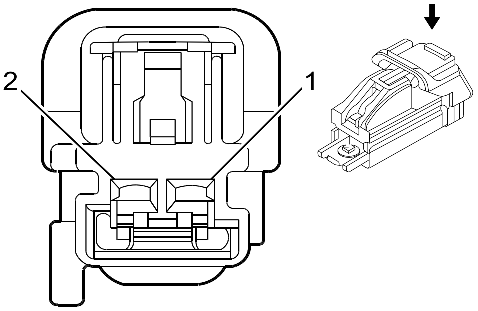
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A28 Hybrid/EV Battery Contactor Assembly X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	3546	High Voltage Battery Positive Monitor Signal	I	—
2	0.5	GY/VT	3548	High Voltage Battery Negative Monitor Signal	I	—

A28 Hybrid/EV Battery Contactor Assembly X6



1856792

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 10846794
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 YESC Series (L-GY)

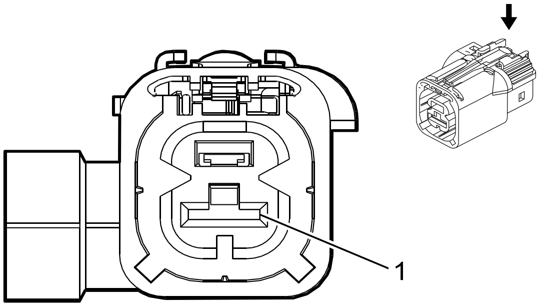
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A28 Hybrid/EV Battery Contactor Assembly X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	150	Ground	I	—
2	—	—	—	Not Occupied	—	—

A28 Hybrid/EV Battery Contactor Assembly X7



4213629

Connector Part Information

Harness Type: High Voltage Body
OEM Connector: 33119078
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Series (OG)

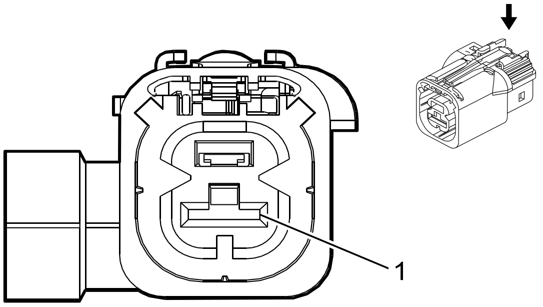
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A28 Hybrid/EV Battery Contactor Assembly X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	12	OG	5084	High Voltage Battery (+)	I	—

A28 Hybrid/EV Battery Contactor Assembly X8



4213899

Connector Part Information

Harness Type: High Voltage Body
OEM Connector: 33119077
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Series (OG)

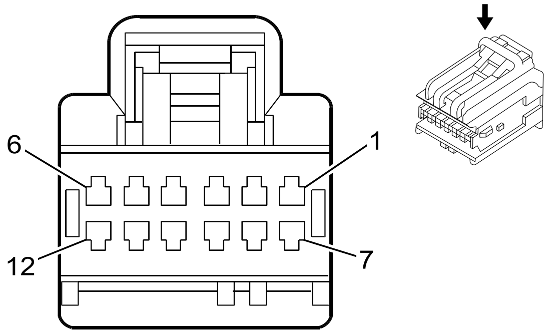
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A28 Hybrid/EV Battery Contactor Assembly X8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	12	OG	5083	High Voltage Battery (-)	I	—

A33 Media Disc Player X1 (D07/U42)



1664569

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13784026
Service Connector: 13578574
Description: 12-Way F 0.64 Series (BK)

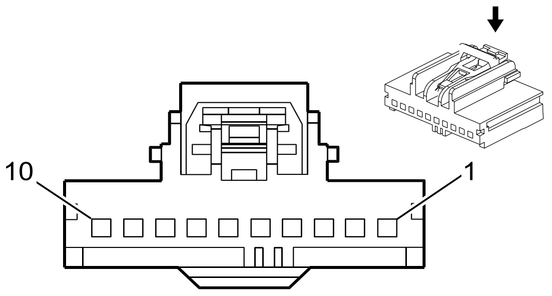
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575550	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J
II	13582250	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	K	K

A33 Media Disc Player X1 (D07/U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/VT	340	Battery Positive Voltage	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
4	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
5	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
6	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
7	0.5	BK	2550	Ground	I	—
8	0.35	GN/YE	7066	Entertainment Remote Enable Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	WH/VT	3999	MOST Control	I	—
11	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
12	—	—	—	Not Occupied	—	—

A33 Media Disc Player X1 (TG5)



1711011

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15490628
Service Connector: 89047355
Description: 10-Way F 0.64 Kaizen Series (BK)

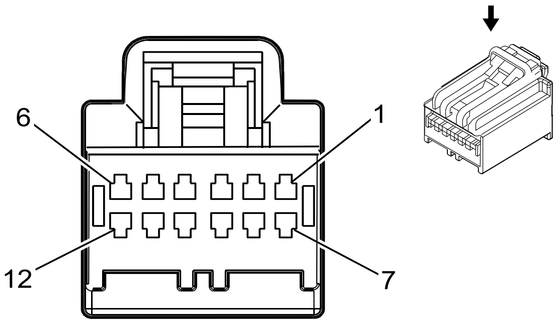
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

A33 Media Disc Player X1 (TG5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	3999	MOST Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
4	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
5	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
6	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
7	—	—	—	Not Occupied	—	—
8	0.75	BK	2550	Ground	I	—
9	—	—	—	Not Occupied	—	—
10	0.75	RD/VT	340	Battery Positive Voltage	I	—

A33 Media Disc Player X2 (D07/U42)



3556661

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13587624
Service Connector: 19151154
Description: 12-Way F 64 Series, Sealed (GY)

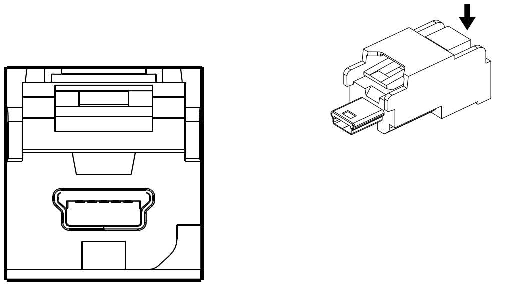
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

A33 Media Disc Player X2 (D07/U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/WH	3355	Left Rear Seat Audio Headphone Signal	I	—
2	0.35	BN/GY	3357	Right Rear Seat Audio Headphone Signal	I	—
3	0.35	BU/VT	3356	Rear Seat Audio Headphone Common Signal	I	—
4	0.5	Bare	3354	Rear Seat Audio Headphone Low Reference	I	—
5 - 12	—	—	—	Not Occupied	—	—

A33 Media Disc Player X3 (U42)



3028809

Connector Part Information

Harness Type: Instrument Panel USB
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M USB Cable Connector (BK)

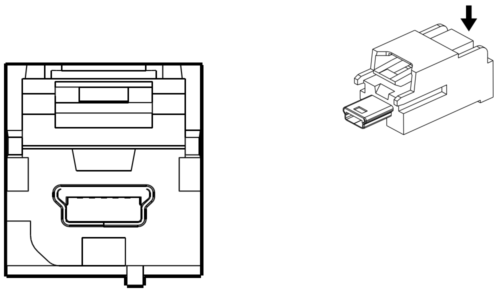
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

A33 Media Disc Player X3 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

A33 Media Disc Player X4 (U42)



3028811

Connector Part Information

Harness Type: Instrument Panel LVDS

OEM Connector: Not Available

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way F LVDS Cable Connector

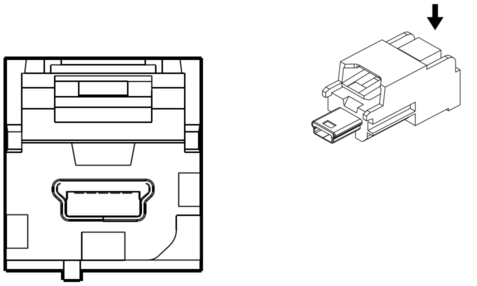
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

A33 Media Disc Player X4 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(Infotainment) Infotainment Display Signal	I	—

A33 Media Disc Player X5 (U42)



3028807

Connector Part Information

Harness Type: Instrument Panel LVDS
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way F LVDS Cable Connector

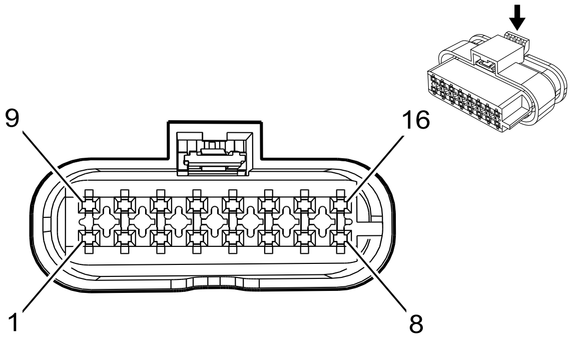
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

A33 Media Disc Player X5 (U42)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(Infotainment) Infotainment Display Signal	I	—

A38 Reductant Pump and Sensor Assembly (L5P)



4259227

Connector Part Information

Harness Type: Reductant Fuel Pump
OEM Connector: 13935934
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.2 Multilock Series (BK)

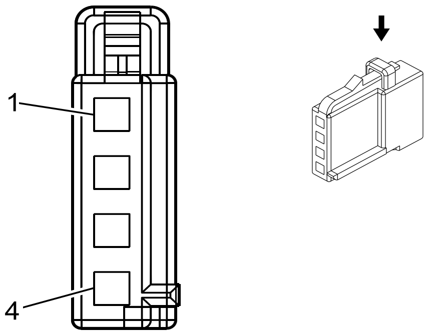
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (L-GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A38 Reductant Pump and Sensor Assembly (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	—	Temperature Sensor Signal	I	—
2	0.5	BK	—	Temperature Sensor Ground	I	—
3	0.5	BN	—	Pressure Sensor Ground	I	—
4	0.5	BU	—	Pressure Sensor Signal	I	—
5	0.5	BN	—	Pressure Sensor Supply	I	—
6	0.5	BU	—	Level Sensor Ground	I	—
7	1.0	WH	—	Pump Phase A	I	—
8	1.0	BU	—	Pump Phase B	I	—
9	1.0	WH	—	Tank Heater Supply	I	—
10	—	—	—	Not Occupied	—	—
11	1.0	BK	—	Tank Heater Ground	I	—
12	—	—	—	Not Occupied	—	—
13	0.5	BU	—	Level Sensor Supply	I	—
14	0.5	BN	—	Level Sensor Signal	I	—
15	1.0	BN	—	Pump Ground	I	—
16	1.0	BN	—	Pump Phase C	I	—

A101L Cargo Box Stowage Box Lid Latch - Left (ZYD)



2179791

Connector Part Information

Harness Type: Left Bin Jumper
OEM Connector: 24466147
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 Timer Series (BK)

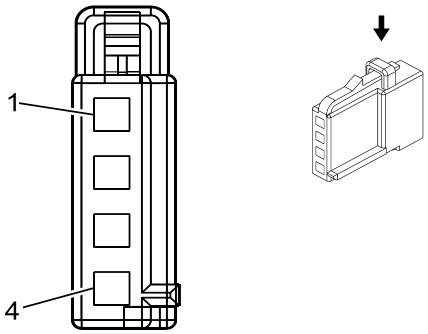
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

A101L Cargo Box Stowage Box Lid Latch - Left (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/BN	967	Configurable Provision 3 Control	I	—
2	0.75	BK	1450	Ground	I	—
3	—	—	—	Not Occupied	—	—
4	0.75	BN	9200	Low Reference	I	—

A101R Cargo Box Stowage Box Lid Latch - Right (ZYD)



2179791

Connector Part Information

Harness Type: Right Bin Jumper
OEM Connector: 24466147
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 Timer Series (BK)

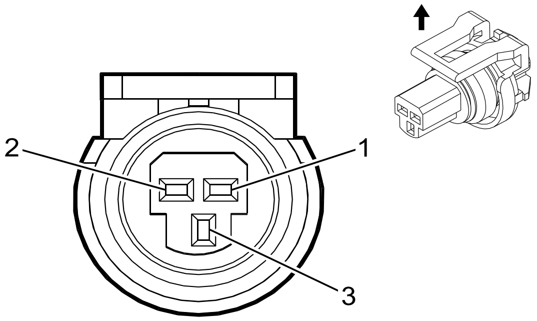
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

A101R Cargo Box Stowage Box Lid Latch - Right (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/GN	968	Configurable Provision 4 Control	I	—
2	0.75	BK	1450	Ground	I	—
3	—	—	—	Not Occupied	—	—
4	0.75	BN	9200	Low Reference	I	—

B1 A/C Refrigerant Pressure Sensor



2909191

Connector Part Information

Harness Type: Engine
OEM Connector: 13846842
Service Connector: 19301715
Description: 3-Way F 150 GT Series, Sealed (BK)

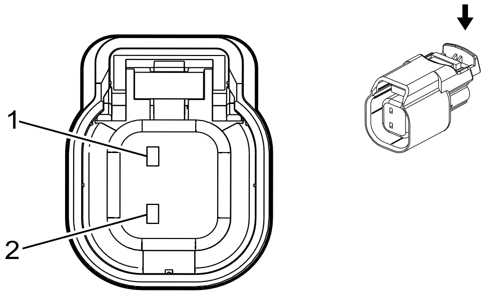
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B1 A/C Refrigerant Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
2	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	—
3	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	I	—

B5LF Wheel Speed Sensor - Left Front



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19300543
Description: 2-Way F 1.5 Series, Sealed (BK)

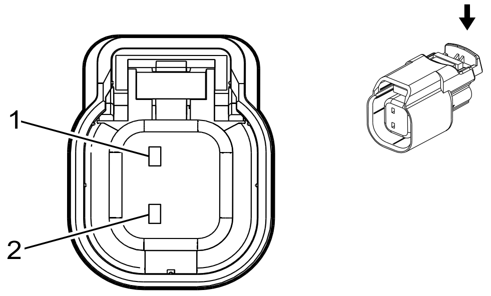
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	7064	Wheel Speed Sensor Control Left Front	I	—
2	0.5	GY	830	Wheel Speed Sensor Signal Left Front	I	—

B5LR Wheel Speed Sensor - Left Rear



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19300543
Description: 2-Way F 1.5 Series, Sealed (BK)

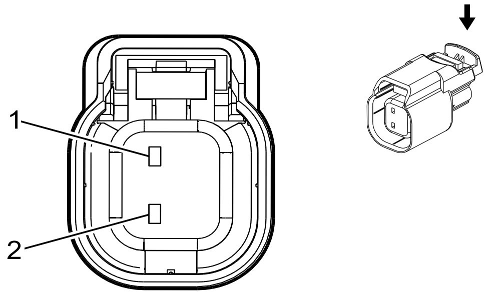
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5LR Wheel Speed Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	7127	Wheel Speed Sensor Control Left Rear	I	—
2	0.5	BU	884	Wheel Speed Sensor Signal Left Rear	I	—

B5RF Wheel Speed Sensor - Right Front



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19300543
Description: 2-Way F 1.5 Series, Sealed (BK)

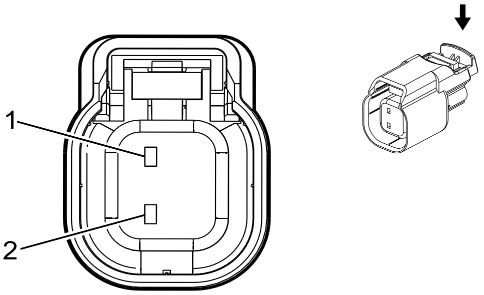
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5RF Wheel Speed Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Wheel Speed Sensor Control Right Front	I	—
2	0.5	YE	872	Wheel Speed Sensor Signal Right Front	I	—

B5RR Wheel Speed Sensor - Right Rear



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19300543
Description: 2-Way F 1.5 Series, Sealed (BK)

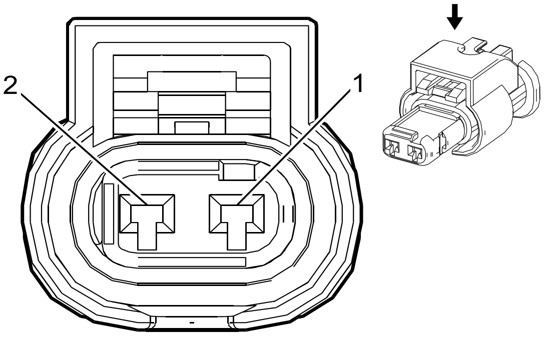
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5RR Wheel Speed Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	7128	Wheel Speed Sensor Control Right Rear	I	—
2	0.5	VT	882	Wheel Speed Sensor Signal Right Rear	I	—

B9 Ambient Air Temperature Sensor



2474752

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13927761
Service Connector: 19367528
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

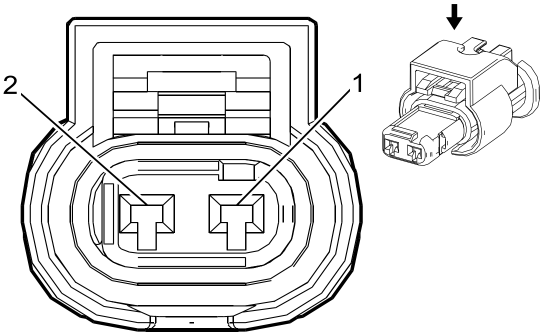
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B9 Ambient Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	—
2	0.5	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	I	—

B9D Ambient Air Temperature Sensor - Mirror (L5P)



2474752

Connector Part Information

Harness Type: Outside Rearview Mirror
OEM Connector: 13586143
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

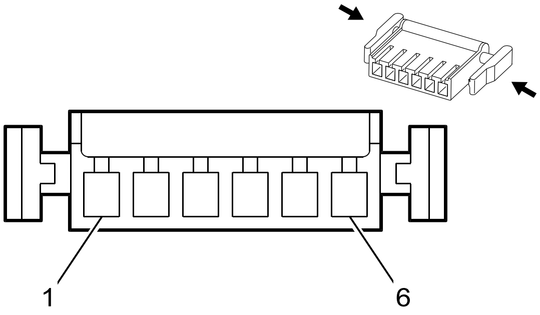
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B9D Ambient Air Temperature Sensor - Mirror (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	—
2	0.5	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	I	—

B10B Ambient Light/Sunload Sensor



2173602

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13726957
Service Connector: 13576539
Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B10B Ambient Light/Sunload Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	728	Security Indicator Control	I	—
2	0.35	GY	590	Solar Sensor Driver Signal	I	—
3	0.35	BU/WH	734	Inside Air Temperature Sensor Signal	I	—
4	0.35	YE/VT	1783	Twilight Sentinel Delay Signal	I	—
5	0.35	WH/BU	278	Ambient Light Sensor Signal	I	—
6	0.35	BK/YE	1791	Air Temperature Door Control Low Reference	I	—

B12A Transmission Fluid Pressure Switch (MW7)

—

Connector Part Information

Harness Type: Allison LCT
OEM Connector: 29543226
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way

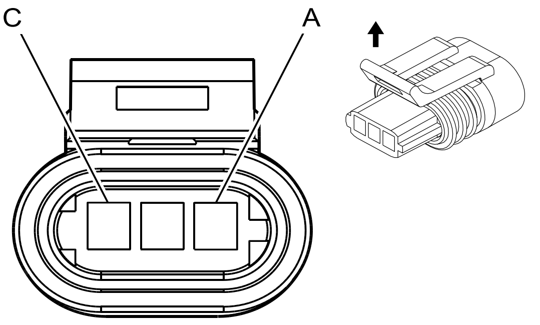
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B12A Transmission Fluid Pressure Switch (MW7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	OG	1224	Transmission Fluid Pressure Switch Signal Bit 1	I	—
B	—	WH	1225	Transmission Fluid Pressure Switch Signal Bit 2	I	—
C	—	GY	1226	Transmission Fluid Pressure Switch Signal Bit 3	I	—
D	—	BN	1530	Transmission Mainline Pressure Solenoid Control	I	—
E	—	TN	1227	Transmission Temperature Sensor Signal	I	—
F	—	BK	407	Sensor Low Reference	I	—

B14A Transmission Output Shaft Speed Sensor



523620

Connector Part Information

Harness Type: Engine
OEM Connector: 12162280
Service Connector: 12085538
Description: 3-Way F 150.2 Metri-Pack Series, Sealed (GY)

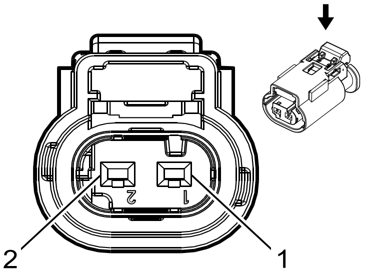
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B14A Transmission Output Shaft Speed Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY/BK	3096	Output Speed (Digital) Sensor 5V Reference	I	—
B	0.5	GN	3098	Output Speed (Digital) Signal	I	—
C	0.5	WH/BK	3097	Output Speed (Digital) Sensor Low Reference	I	—

B14B Transmission Turbine Speed Sensor



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

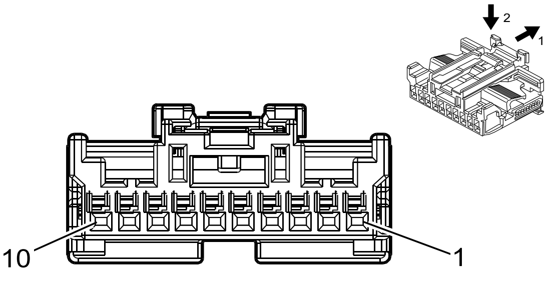
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B14B Transmission Turbine Speed Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN/YE	6353	Input Speed Signal	I	—
2	0.75	YE/BU	4171	Transmission Position Sensor A 9V Reference	I	—

B15 Transmission Internal Mode Switch (M5U/M5X)



4051038

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 2138504–1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Generation Y Series (BN)

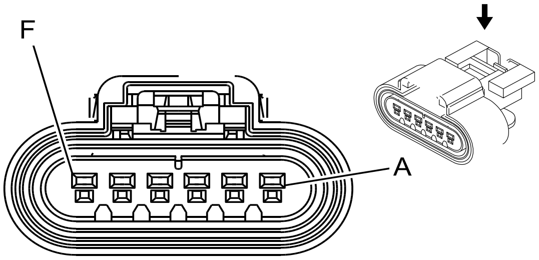
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B15 Transmission Internal Mode Switch (M5U/M5X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
2	0.5	BK/GY	3927	IMS Mode Switch Low Reference	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	YE/BU	4171	Transmission Position Sensor A 9V Reference	I	—
5	0.5	VT/WH	5981	PRNDL A Signal	I	—
6	0.5	WH/BK	5983	PRNDL C Signal	I	—
7	0.5	GY/YE	4169	PRNDL S Signal	I	—
8	0.5	GY/BN	5982	PRNDL B Signal	I	—
9	0.5	GY/WH	4168	PRNDL P Signal	I	—
10	0.5	YE/GN	4170	Transmission Position Sensor B 9V Reference	I	—

B15 Transmission Internal Mode Switch (MW7)



886053

Connector Part Information

Harness Type: Allison LCT
OEM Connector: 15326830
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT Series, Sealed (BK)

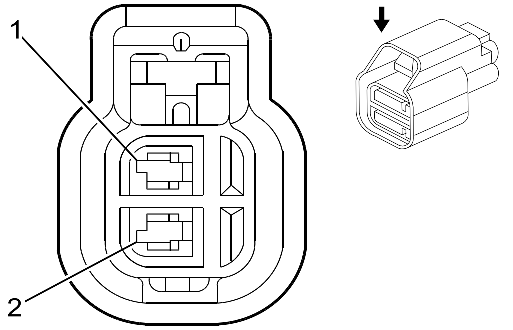
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B15 Transmission Internal Mode Switch (MW7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	PU/BK	1995	Transmission Park/Neutral Signal 2	I	—
B	0.5	PK/BK	776	Transmission Position Switch Parity Bit Signal	I	—
C	0.5	YE/BK	771	Transmission Position Switch Bit 1 Signal	I	—
D	0.5	TN/WH	772	Transmission Position Switch Bit 2 Signal	I	—
E	0.5	BK/WH	773	Transmission Position Switch Bit 3 Signal	I	—
F	0.5	BK	407	Sensor Low Reference	I	—

B16 Backup Lamp Switch (LV3)



1625659

Connector Part Information

Harness Type: Engine
OEM Connector: 15383325
Service Connector: 89046838
Description: 2-Way F 1.5 Series (BK)

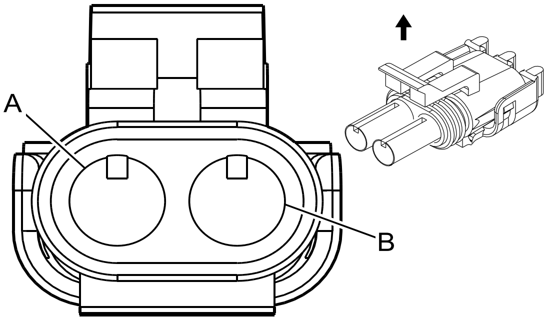
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B16 Backup Lamp Switch (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK/WH	451	Signal Ground	I	—
2	0.5	GN/WH	5007	Reverse Switch Signal	I	—

B16 Backup Lamp Switch (ZW9)



516604

Connector Part Information

Harness Type: Engine
OEM Connector: 12103584
Service Connector: 12085485
Description: 2-Way F Weather Pack Series (BK)

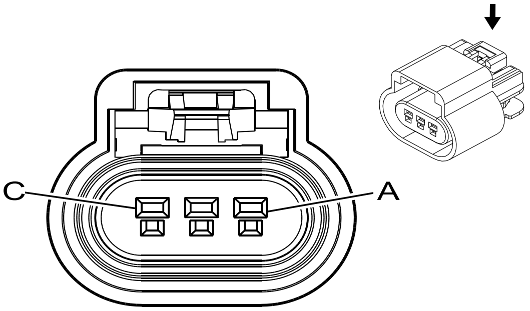
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-9 (OR)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B16 Backup Lamp Switch (ZW9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BK/WH	451	Signal Ground	I	—
B	0.5	GN/WH	5007	Reverse Switch Signal	I	—

B18 Battery Current Sensor



646415

Connector Part Information

Harness Type: Engine
OEM Connector: 13519047
Service Connector: 13580871
Description: 3-Way F 150 GT Series, Sealed (BK)

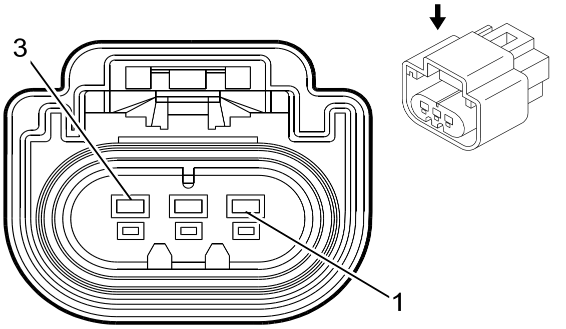
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B18 Battery Current Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/VT	5076	Current Sensor Control	I	—
B	0.5	BK/VT	5077	Current Sensor Low Reference	I	—
C	0.5	WH/YE	5075	Current Sensor Signal	I	—

B19B Brake Booster Vacuum Sensor



1962078

Connector Part Information

Harness Type: Chassis
OEM Connector: 13511996
Service Connector: 13580873
Description: 3-Way F 150 GT Series, Sealed (GY)

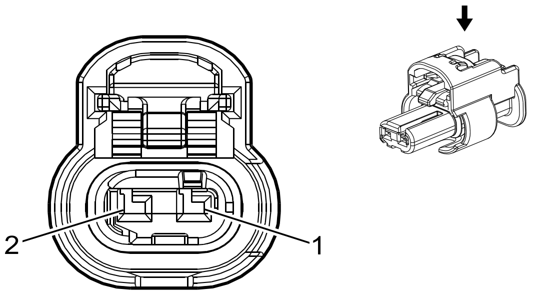
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B19B Brake Booster Vacuum Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	6030	Brake Vacuum Sensor Signal	I	—
2	0.5	BK/YE	6032	Brake Vacuum Sensor Low Reference	I	—
3	0.5	YE/RD	6031	Brake Vacuum Sensor 5V Reference	I	—

B20 Brake Fluid Level Switch



4649903

Connector Part Information

Harness Type: Chassis
OEM Connector: 33327048
Service Connector: 19366842
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

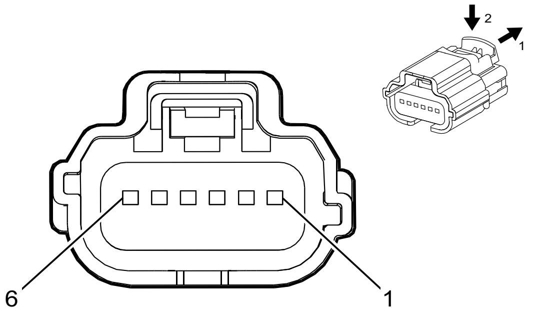
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.75	BK BK	2150 2150	Ground Ground	I I	SERIES 10 SERIES20/ SERIES30/ SERIES 31
2	0.5	GN/GY	333	Brake Fluid Level Sensor Signal	I	—

B22 Brake Pedal Position Sensor (E29)



4773396

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 35012529
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 64 Series, Sealed (NA)

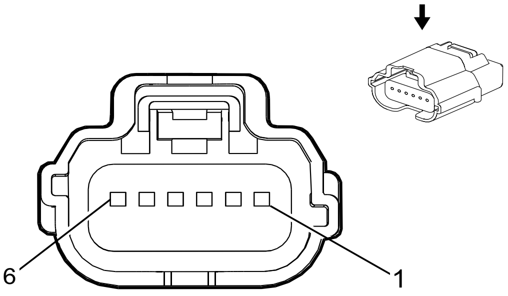
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B22 Brake Pedal Position Sensor (E29)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/GN	552	Sensor Low Reference	I	—
2	0.5	GY/RD	598	5V Reference	I	—
3	0.5	WH/GN	526	Stop Lamp Switch Signal	I	—
4 - 6	—	—	—	Not Occupied	—	—

B22 Brake Pedal Position Sensor (-E29)



3270302

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 13893502
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 64 Series, Sealed (NA)

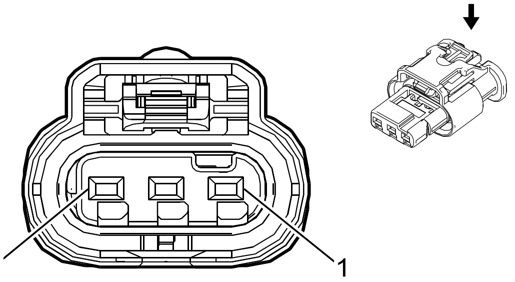
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B22 Brake Pedal Position Sensor (-E29)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/GN	552	Sensor Low Reference	I	—
2	0.5	GY/RD	598	5V Reference	I	—
3	0.5	WH/GN	526	Stop Lamp Switch Signal	I	—
4	0.5	BU/YE	5361	Brake Apply Sensor Signal	I	—
5	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	I	—
6	0.5	WH	5359	Brake Apply Sensor Control	I	—

B23 Camshaft Position Sensor (L5P)



2889711

Connector Part Information

Harness Type: Engine
OEM Connector: 13582399
Service Connector: 19367741
Description: 3-Way F 1.2 MCP Series, Sealed (BN)

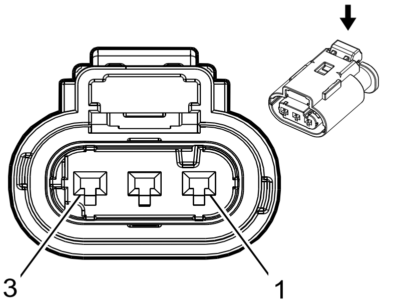
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23 Camshaft Position Sensor (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	L5P
2	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	L5P
3	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	II	L5P

B23 Camshaft Position Sensor (-L5P)



2717069

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13763990
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

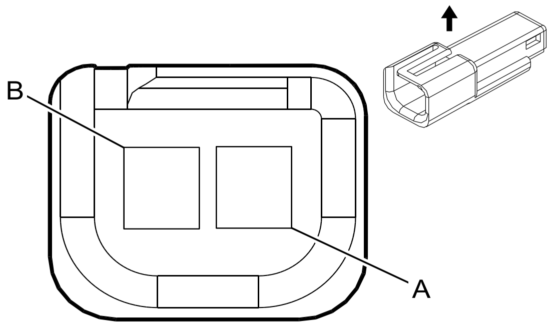
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23 Camshaft Position Sensor (-L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	—
2	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
3	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—

B24 Mobile Telephone Microphone



Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

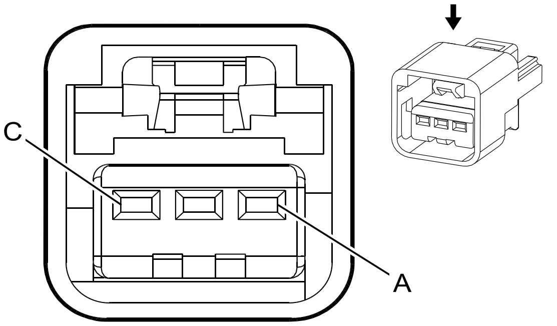
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B24 Mobile Telephone Microphone

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK/BN	654	Cellular Telephone Microphone Low Reference	I	—
B	0.35	BU	655	Cellular Telephone Microphone Signal	I	—

B25B Clutch Pedal Position Sensor (E29)



1243663

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15332132
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 150 GT Series (BK)

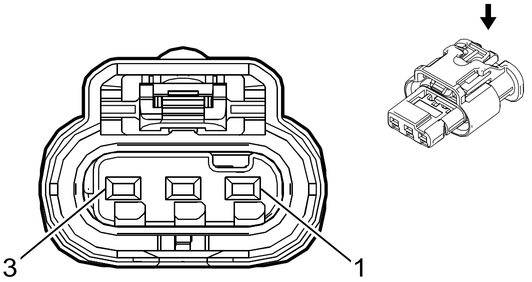
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B25B Clutch Pedal Position Sensor (E29)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY/RD	6109	Clutch Apply Sensor 5V Reference	I	—
B	0.5	YE	6111	Clutch Apply Sensor Signal	I	—
C	0.5	BK/GY	6110	Clutch Apply Sensor Low Reference	I	—

B26 Crankshaft Position Sensor (L5P)



2889711

Connector Part Information

Harness Type: Engine
OEM Connector: 13582399
Service Connector: 19367741
Description: 3-Way F 1.2 MCP Series, Sealed (BN)

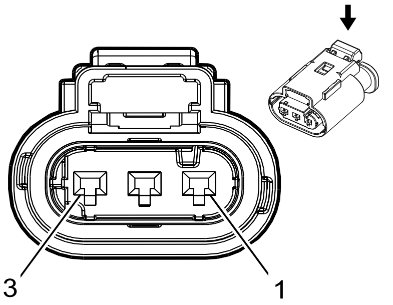
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	L5P
2	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	L5P
3	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	L5P

B26 Crankshaft Position Sensor (L8B/LV3/L83/L86)



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 19299690
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

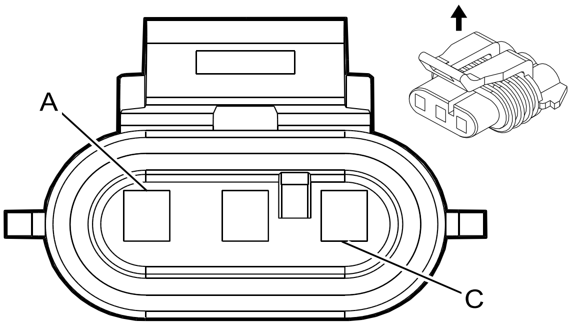
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (L8B/LV3/L83/L86)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—
2	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
3	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—

B26 Crankshaft Position Sensor (L96)



684840

Connector Part Information

Harness Type: Engine
OEM Connector: 13838337
Service Connector: 19329936
Description: 3-Way F 150 Metri-Pack Series, Sealed (GY)

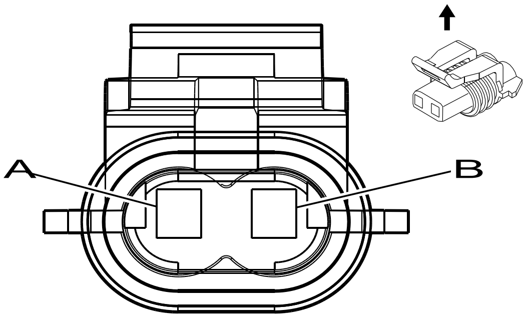
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—
B	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
C	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—

B33 Engine Coolant Level Switch



655783

Connector Part Information

Harness Type: Engine
OEM Connector: 15324243
Service Connector: 15306302
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

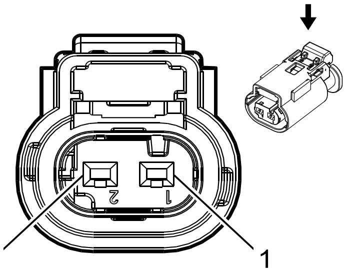
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B33 Engine Coolant Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/YE	68	Low Coolant Level Indicator Control	I	—
B	0.75	BK/WH	451	Signal Ground	I	—

B34 Engine Coolant Temperature Sensor (L5P)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13503566
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

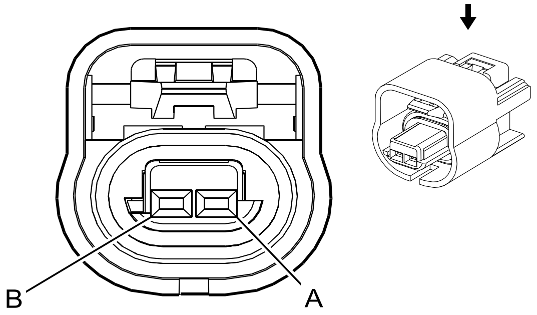
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34 Engine Coolant Temperature Sensor (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	L5P
2	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	L5P

B34 Engine Coolant Temperature Sensor (L83/L86/LV3/L8B)



1974966

Connector Part Information

Harness Type: Engine
OEM Connector: 15355317
Service Connector: 19178093
Description: 2-Way F 150 GT Series, Sealed (BK)

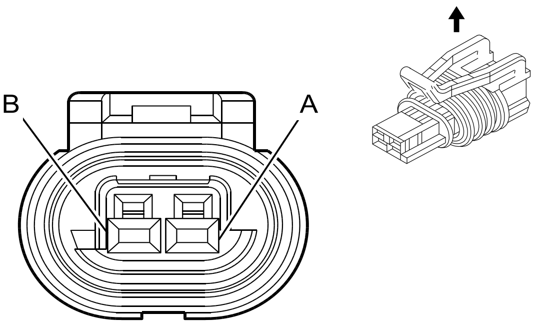
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34 Engine Coolant Temperature Sensor (L83/L86/LV3/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
B	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—

B34 Engine Coolant Temperature Sensor (L96)



1538760

Connector Part Information

Harness Type: Engine
OEM Connector: 15449028
Service Connector: 88987993
Description: 2-Way F 150 GT Series, Sealed (BK)

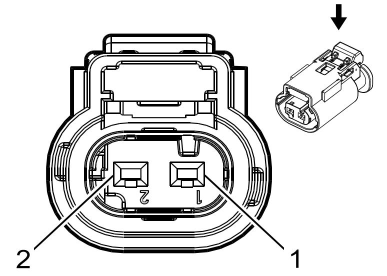
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34 Engine Coolant Temperature Sensor (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
B	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—

B35 Engine Oil Level Switch (L5P)



Connector Part Information

Harness Type: Engine
OEM Connector: 13503566
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

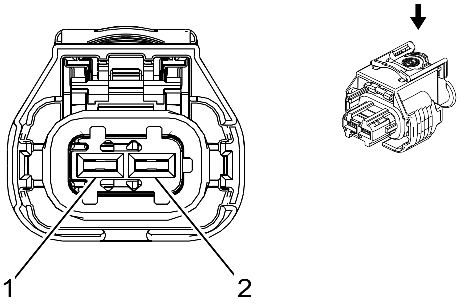
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B35 Engine Oil Level Switch (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/WH	251	Signal Ground	I	L5P
2	0.5	BN/GN	1174	Oil Level Switch Signal	I	L5P

B35 Engine Oil Level Switch (L83/L86/LV3/L8B)



Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

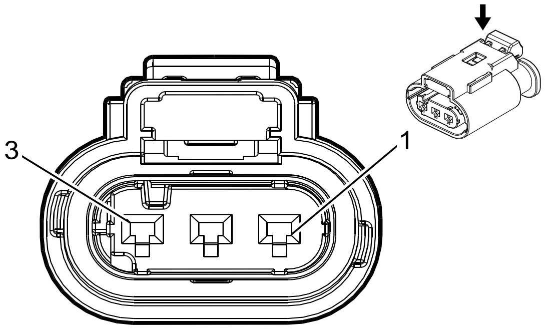
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B35 Engine Oil Level Switch (L83/L86/LV3/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/WH	451	Signal Ground	I	—
2	0.5	BN/GN	1174	Oil Level Switch Signal	I	—

B37B Engine Oil Pressure Sensor (L5P)



Connector Part Information

Harness Type: Engine
OEM Connector: 13503573
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

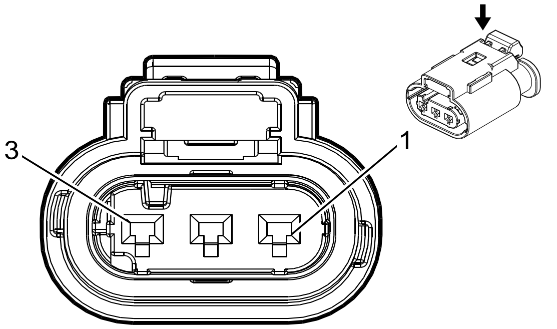
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	L5P
2	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	L5P
3	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	L5P

B37B Engine Oil Pressure Sensor (L83/L86/LV3/L8B)



3240107

Connector Part Information

Harness Type: Engine
OEM Connector: 13889776
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

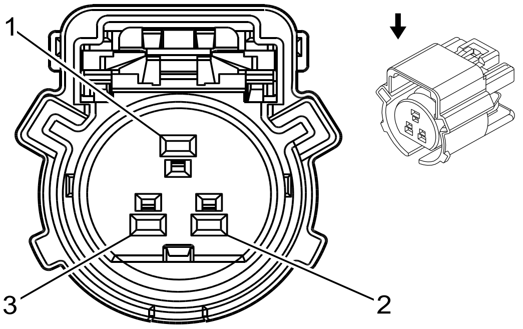
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (L83/L86/LV3/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
3	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—

B37B Engine Oil Pressure Sensor (L96)



2159957

Connector Part Information

Harness Type: Engine
OEM Connector: 13589761
Service Connector: 13501882
Description: 3-Way F 150 GT Series, Sealed (BK)

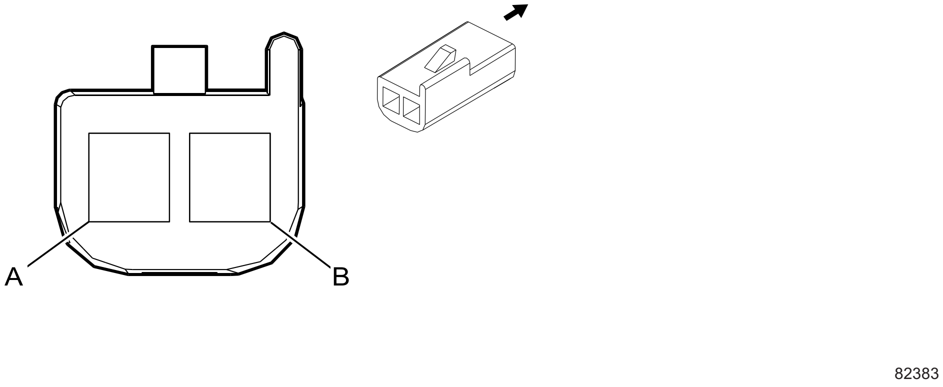
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
3	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—

B39 A/C Evaporator Temperature Sensor



Connector Part Information

Harness Type: HVAC
OEM Connector: 12047662
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

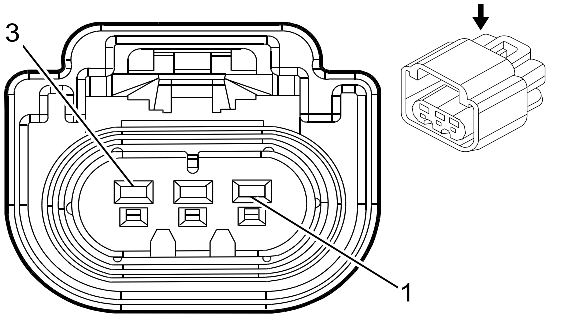
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B39 A/C Evaporator Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	GY	6137	EVAP Core Temperature Sensor Signal	I	—
B	0.35	BK/YE	407	Sensor Low Reference	I	—

B47 Fuel Pressure Sensor



1860942

Connector Part Information

Harness Type: Chassis
OEM Connector: 13511131
Service Connector: 19168035
Description: 3-Way F 150 GT Series, Sealed (BK)

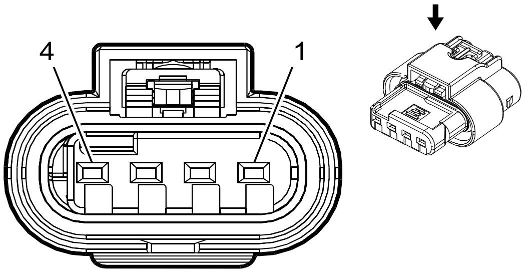
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B47 Fuel Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	I	—
2	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	—
3	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—

B47B Fuel Rail Pressure Sensor



2596543

Connector Part Information

Harness Type: Engine
OEM Connector: 13576418
Service Connector: 19300397
Description: 4-Way F 1.2 MCP Series, Sealed (BK)

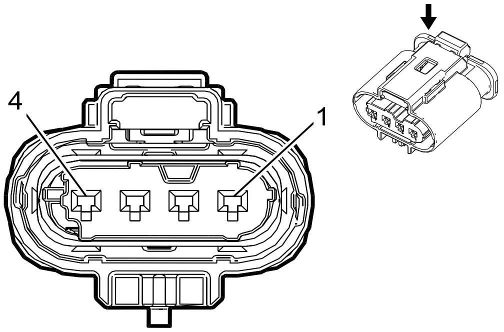
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B47B Fuel Rail Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	L5P
2	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	L5P
3	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	L5P
4	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	L5P

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (L83/L86/LV3/L8B/LV1)



3240113

Connector Part Information

Harness Type: Engine
OEM Connector: 13869004
Service Connector: 19301716
Description: 4-Way F 1.2 Multilock Series, Sealed (D-GY)

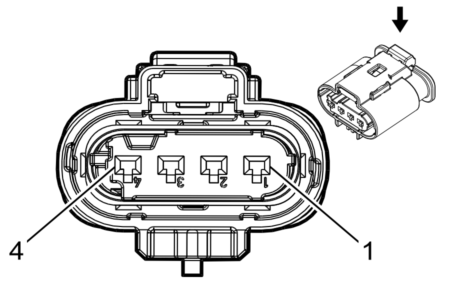
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (L83/L86/LV3/L8B/LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
2	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
3	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
4	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (-ZW9)



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

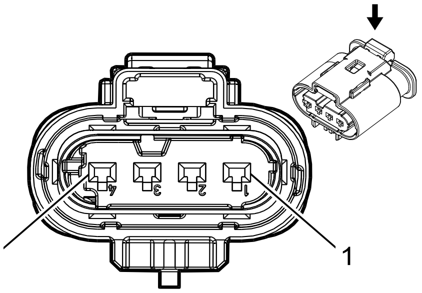
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (-ZW9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
2	0.75	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
3	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
4	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—

B52D Heated Oxygen Sensor - Bank 1 Sensor 2



2717096

Connector Part Information

Harness Type: Chassis
OEM Connector: 13815348
Service Connector: 13587298
Description: 4-Way F 1.2 Multilock Series, Sealed (L-GY)

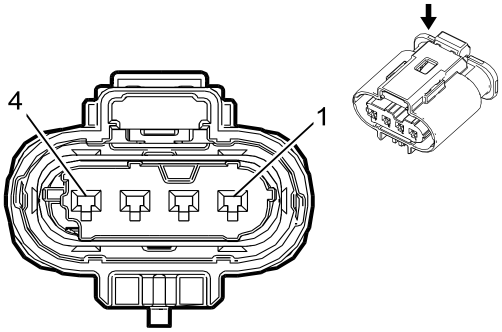
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
2	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
3	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
4	0.5	VT	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (L83/L86/LV3/L8B)



3240113

Connector Part Information

Harness Type: Engine
OEM Connector: 13869004
Service Connector: 19301716
Description: 4-Way F 1.2 Multilock Series, Sealed (D-GY)

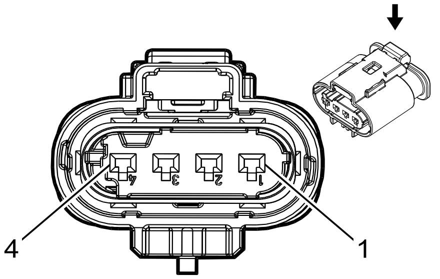
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (L83/L86/LV3/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
2	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
3	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
4	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (L96)



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

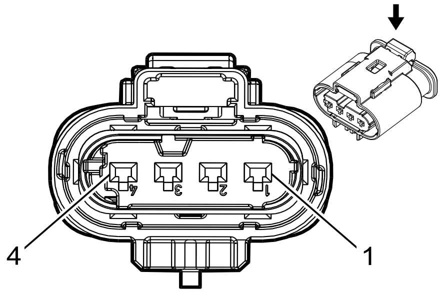
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
2	0.75	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
3	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
4	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—

B52F Heated Oxygen Sensor - Bank 2 Sensor 2



2717096

Connector Part Information

Harness Type: Engine
OEM Connector: 13815348
Service Connector: 13587298
Description: 4-Way F 1.2 Multilock Series, Sealed (L-GY)

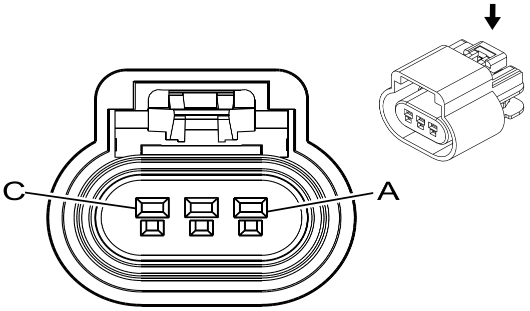
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
2	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
3	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
4	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—

B55 Engine Hood Switch



646415

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13519047
Service Connector: 13580871
Description: 3-Way F 150 GT Series, Sealed (BK)

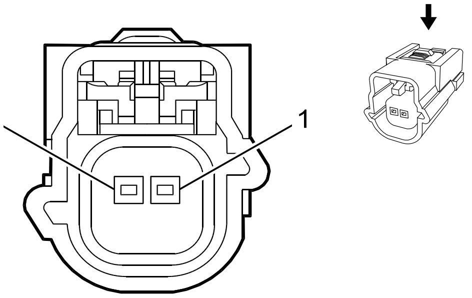
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B55 Engine Hood Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	YE	5530	Hood Open Switch Signal	I	—
B	0.5	BN/GN	109	Hood Ajar Switch Signal	I	—
C	1 0.5	BK BK/YE	250 4082	Ground Hood Latch Sensor Low Reference	I I	-L86/-L83/-LV1/-LV3-HP5 L86/L83/LV1/LV3-HP5

B59 Front Impact Sensor



2179777

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13593078
Service Connector: 13577629
Description: 2-Way F 0.64 Series, Sealed (L-GY)

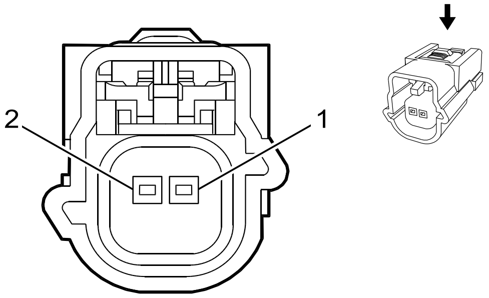
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B59 Front Impact Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GY	6618	Middle Front Discriminating Sensor Signal	I	—
2	0.5	BK/OG	6619	Middle Front Discriminating Sensor Low Reference	I	—

B59L Front Impact Sensor - Left



2179777

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13593078
Service Connector: 13577629
Description: 2-Way F 0.64 Series, Sealed (L-GY)

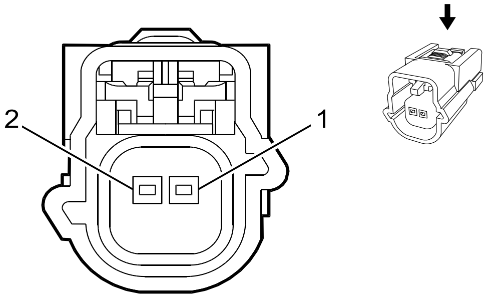
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B59L Front Impact Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/YE	354	Left Front Discriminating Sensor Signal	I	—
2	0.5	BK/OG	5045	Left Front Discriminating Sensor Low Reference	I	—

B59R Front Impact Sensor - Right



2179777

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13593078
Service Connector: 13577629
Description: 2-Way F 0.64 Series, Sealed (L-GY)

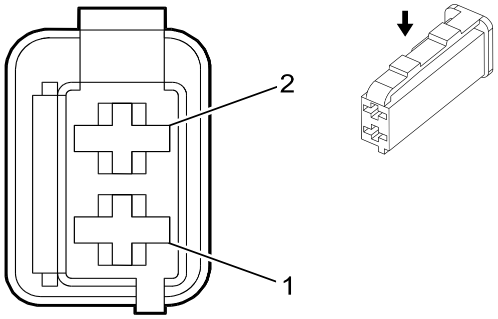
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B59R Front Impact Sensor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GN	1409	Right Front Discriminating Sensor Signal	I	—
2	0.5	BK/OG	5600	Right Front Discriminating Sensor Low Reference	I	—

B61P Seat Belt Tension Sensor - Passenger (AL0)



2339593

Connector Part Information

Harness Type: Body
OEM Connector: 13670097
Service Connector: 13580951
Description: 2-Way F 1.6 Timer Series (BK)

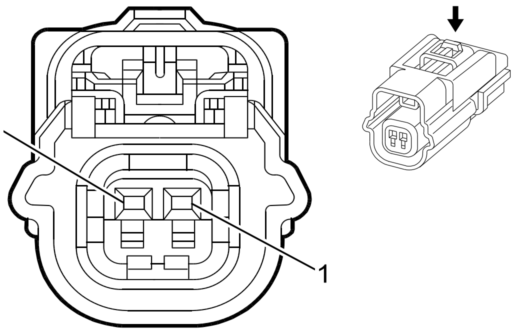
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B61P Seat Belt Tension Sensor - Passenger (AL0)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35 —	BU/RD BU/RD	5612 5612	Passenger Seat Belt Tension Sensor 5V Reference Passenger Seat Belt Tension Sensor 5V Reference	I II	AL0 -AL0
2	0.35 —	VT/OG RD	5611 5611	Passenger Seat Belt Tension Sensor Signal Passenger Seat Belt Tension Sensor Signal	I II	AL0 -AL0

B62D Seat Position Sensor - Driver



1664592

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 54390239
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed (BK)

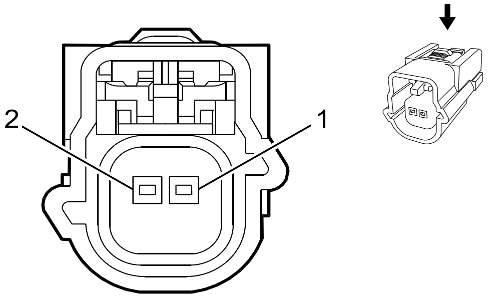
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B62D Seat Position Sensor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	—
2	0.35	OG/GN	5055	Driver Seat Position Switch Signal	I	—

B63LF Side Impact Sensor - Left Front



2179777

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13593078
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (L-GY)

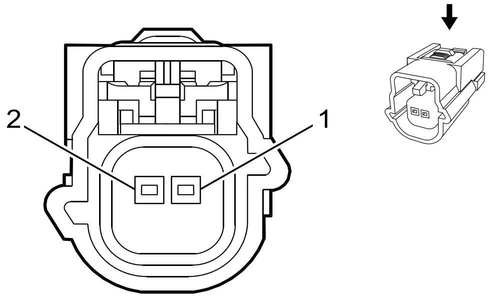
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63LF Side Impact Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GN	2132	Left Front Side Impact Sensing Module Signal	I	—
2	0.5	BK/OG	6628	Left Front Side Impact Sensing Module Low Reference	I	—

B63LR Side Impact Sensor - Left Rear



2179777

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (D-GY)

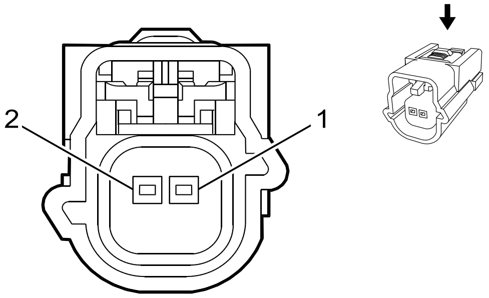
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63LR Side Impact Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BU	6620	Left Middle Side Impact Sensing Module Signal	I	—
2	0.5	BK/OG	6621	Left Middle Side Impact Sensing Module Low Reference	I	—

B63RF Side Impact Sensor - Right Front



2179777

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13593078
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (L-GY)

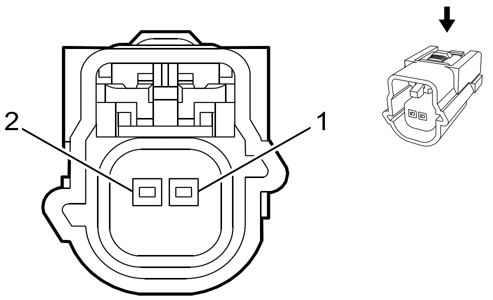
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63RF Side Impact Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GN	2134	Right Front Side Impact Sensing Module Signal	I	—
2	0.5	BK/OG	6629	Right Front Side Impact Sensing Module Low Reference	I	—

B63RR Side Impact Sensor - Right Rear



Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (D-GY)

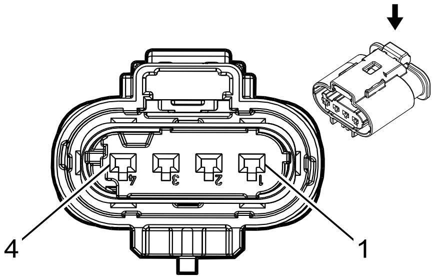
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63RR Side Impact Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/VT	6624	Right Middle Side Impact Sensing Module Signal	I	—
2	0.5	BK/OG	6625	Right Middle Side Impact Sensing Module Low Reference	I	—

B65 Intake Manifold Pressure and Air Temperature Sensor



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13503575
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

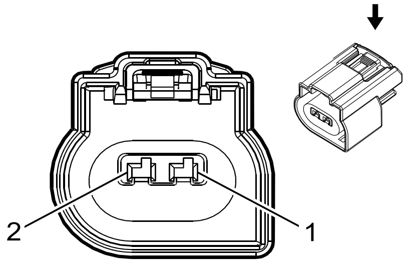
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B65 Intake Manifold Pressure and Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	7348	Induction Air Temperature Sensor 2 Signal	I	L5P
2	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	L5P
3	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	L5P
4	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	L5P

B68A Knock Sensor 1



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

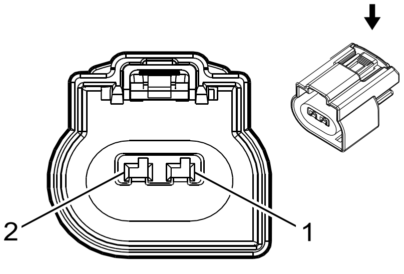
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B68A Knock Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
2	0.75	BK/YE	1716	Knock Sensor Low Reference 1	I	—

B68B Knock Sensor 2



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

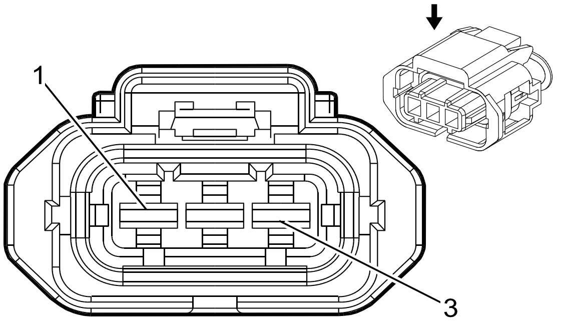
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B68B Knock Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/GY	1876	Knock Sensor Signal 2	I	—
2	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—

B74 Manifold Absolute Pressure Sensor (L83/L86/LV3/L8B)



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 15397338
Service Connector: 13585845
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

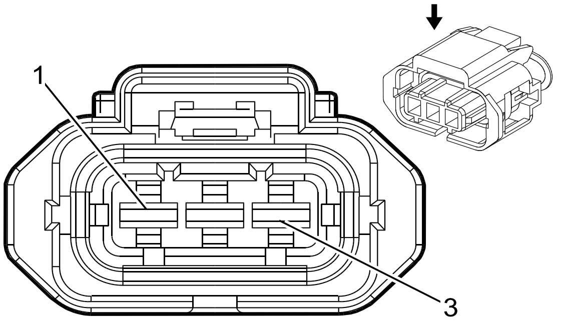
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B74 Manifold Absolute Pressure Sensor (L83/L86/LV3/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B74 Manifold Absolute Pressure Sensor (L96)



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 13639747
Service Connector: 19181248
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

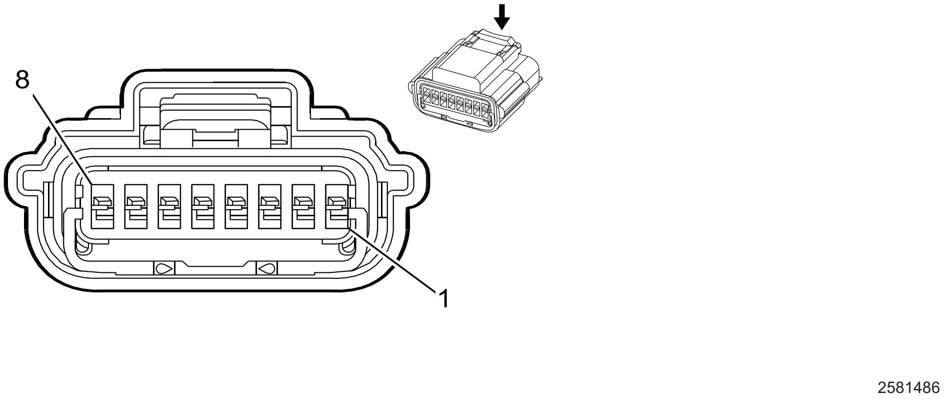
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B74 Manifold Absolute Pressure Sensor (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B75C Multifunction Intake Air Sensor



Connector Part Information

Harness Type: Engine
OEM Connector: 13774439
Service Connector: 13583440
Description: 8-Way F 0.64 Series, Sealed (BK)

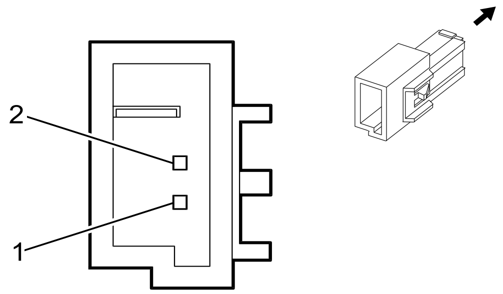
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B75C Multifunction Intake Air Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	I	—
2	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
3	0.5 0.5	BK/VT WH/YE	2760 3202	Intake Air Temperature Sensor Low Reference Throttle Inlet Absolute Pressure Sensor Low Reference	I I	L96+E78 LV3+E92/L83/L86/L8B
4	0.5 0.5	BN/GN YE/WH	5266 3200	Ambient Air Pressure Sensor Signal Throttle Inlet Absolute Pressure Sensor Signal	I I	L5P+E41 LV3+E92/L83/L86/L8B
5	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
6	0.5	GN/WH	492	Mass Air Flow Sensor Signal	I	—
7	0.75	BK/WH	451	Signal Ground	I	—
8	0.5 0.5	BN/GY GY/BU	4008 7564	Humidity Sensor Signal Humidity Sensor Signal	I I	L5P+E41 L96+E78/L83/L86/L8B/LV3+E92

B77LF Radio Volume Compensator Interior Noise Microphone - Left Front



2179778

Connector Part Information

Harness Type: Headliner
OEM Connector: 13676029
Service Connector: 19260825
Description: 2-Way M 0.64 Series (BK)

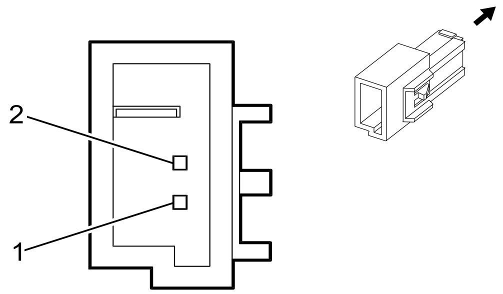
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-65B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B77LF Radio Volume Compensator Interior Noise Microphone - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/BK	3008	Noise Reduction Microphone 1 Low Reference	I	—
2	0.35	GN/WH	3005	Noise Reduction Microphone 1 Signal	I	—

B77R Radio Volume Compensator Interior Noise Microphone - Rear



2179778

Connector Part Information

Harness Type: Headliner
OEM Connector: 13676029
Service Connector: 19260825
Description: 2-Way M 0.64 Series (BK)

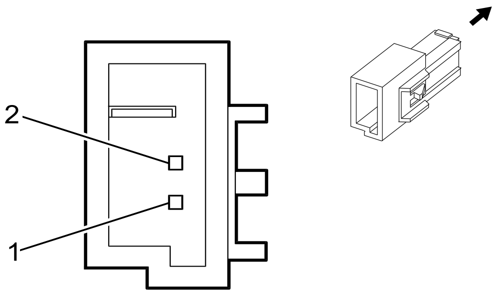
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-65B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B77R Radio Volume Compensator Interior Noise Microphone - Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/BN	3010	Noise Reduction Microphone 3 Low Reference	I	—
2	0.35	GY/BU	3007	Noise Reduction Microphone 3 Signal	I	—

B77RF Radio Volume Compensator Interior Noise Microphone - Right Front



2179778

Connector Part Information

Harness Type: Headliner
OEM Connector: 13676029
Service Connector: 19260825
Description: 2-Way M 0.64 Series (BK)

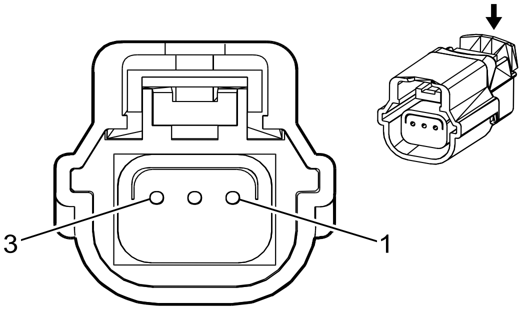
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-65B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B77RF Radio Volume Compensator Interior Noise Microphone - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/BK	3009	Noise Reduction Microphone 2 Low Reference	I	—
2	0.35	BU/YE	3006	Noise Reduction Microphone 2 Signal	I	—

B78A Front Object Sensor - Left Outer



1846469

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

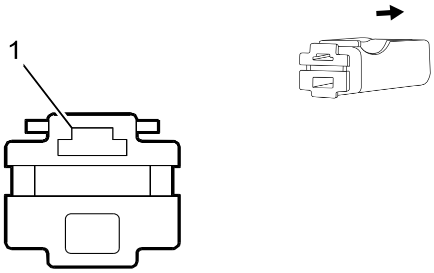
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B78A Front Object Sensor - Left Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GN	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	VT/WH	5215	Front Parking Left Corner Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B80 Park Brake Switch



1413086

Connector Part Information

Harness Type: Body
OEM Connector: 13511619
Service Connector: 88988465
Description: 1-Way F 250 Series (BK)

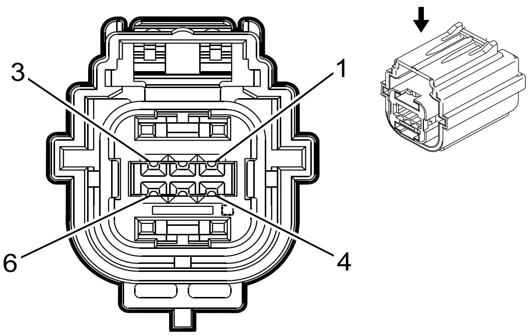
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B80 Park Brake Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BU/VT	1134	Park Brake Switch Signal	I	—

B87 Rearview Camera



2133378

Connector Part Information

Harness Type: Tailgate
OEM Connector: 19169088
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (GY)

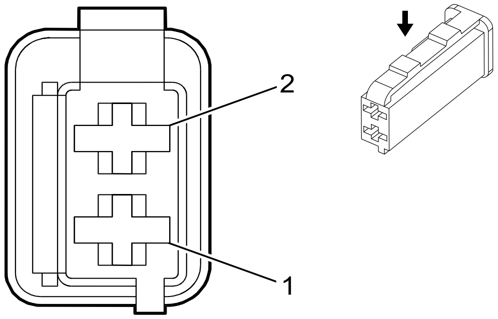
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B87 Rearview Camera

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/YE	6972	Camera Signal 2 +	I	—
2	0.35	BN	6974	Camera Low Reference	I	—
3	0.35	GN/WH	24	Backup Lamp Control	I	—
4	0.35	WH/BU	6973	Camera Signal 2	I	—
5	0.35	BK	2550	Ground	I	—
6	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	I	—

B88D Seat Belt Switch - Driver



2339593

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 1563189-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

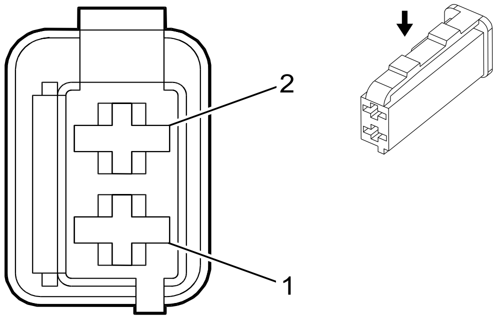
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B88D Seat Belt Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	—
2	0.35	OG/BN	238	Driver Seat Belt Switch Signal	I	—

B88P Seat Belt Switch - Passenger



2339593

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 1563189-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B88P Seat Belt Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	—
2	0.35	OG/VT	1362	Passenger Seat Belt Switch Signal	I	—

B99 Steering Wheel Angle Sensor

—

Connector Part Information

Harness Type: Steering Column
OEM Connector: 1241370
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way

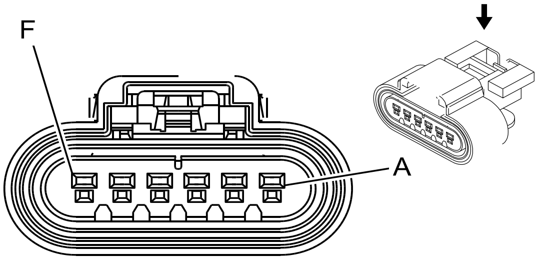
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B99 Steering Wheel Angle Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
2	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
3	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
4	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
5	0.35	GN/BN	2087	Combined Vehicle Inertial Sensor Supply Voltage	I	—
6	0.5	BK/WH	1851	Signal Ground	I	—
9	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
10	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—

B107 Accelerator Pedal Position Sensor



886053

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15326830
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT Series, Sealed (BK)

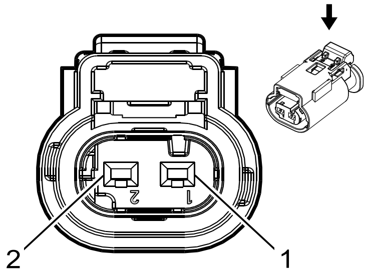
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B107 Accelerator Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
B	0.35	GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
C	0.35	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
D	0.35	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
E	0.35	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
F	0.35	BK/BU	1271	Accelerator Pedal Position Low Reference 1	I	—

B115 Vehicle Speed Sensor (MW7)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

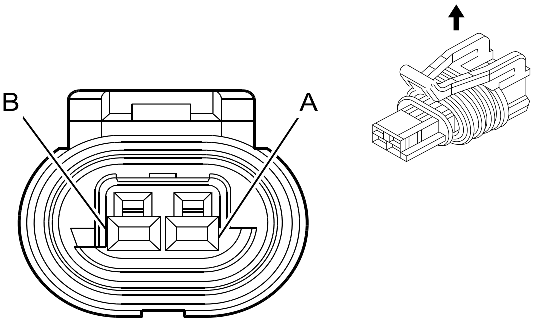
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B115 Vehicle Speed Sensor (MW7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	6358	Output Speed Signal	I	MW7
	0.75	GY/BU	6358	Output Speed Signal	I	-NQF-NQG
2	0.5	YE/GN	4170	Transmission Position Sensor B 9V Reference	I	MW7
	0.75	YE/GN	4170	Transmission Position Sensor B 9V Reference	I	-NQF-NQG

B115 Vehicle Speed Sensor (NQF/ZW9/NQG/NQH/LV3/L8B)



1538760

Connector Part Information

Harness Type: Engine
OEM Connector: 15449028
Service Connector: 88987993
Description: 2-Way F 150 GT Series, Sealed (BK)

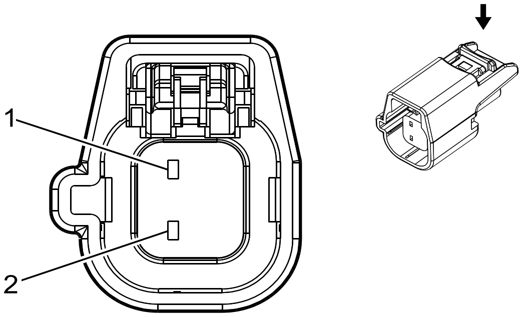
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B115 Vehicle Speed Sensor (NQF/ZW9/NQG/NQH/LV3/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/GN	822	Vehicle Speed Sensor Low Reference	I	L83/L86/L8X
	0.5	VT/WH	821	Vehicle Speed Sensor Signal	I	-L83/-L86/-L8X
B	0.5	VT/WH	821	Vehicle Speed Sensor Signal	I	L83/L86/L8X
	0.5	BK/GN	822	Vehicle Speed Sensor Low Reference	I	-L83/-L86/-L8X

B118B Windshield Washer Fluid Level Switch



3958652

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33113086
Service Connector: 13593220
Description: 2-Way F 1.5 Series (L-GY)

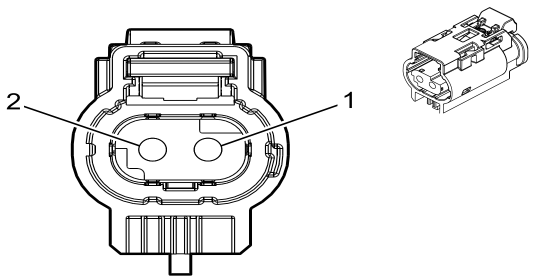
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B118B Windshield Washer Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	185	Low Washer Fluid Indicator Control	I	—
2	0.5	BK	150	Ground	I	—

B130A Exhaust Gas Recirculation Temperature Sensor 1 (L5P)



4451423

Connector Part Information

Harness Type: Engine
OEM Connector: 13583201
Service Connector: 19354079
Description: 5-Way F 1.2 Multilock Series, Sealed

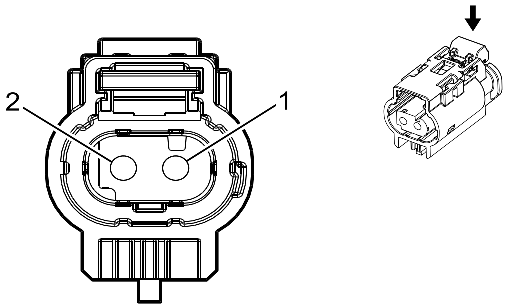
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130A Exhaust Gas Recirculation Temperature Sensor 1 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GN	3236	Exhaust Gas Recirculation Temperature Sensor Signal	I	L5P
2	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	L5P

B130B Exhaust Gas Recirculation Temperature Sensor 2 (L5P)



Connector Part Information

Harness Type: Engine
OEM Connector: 13583199
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

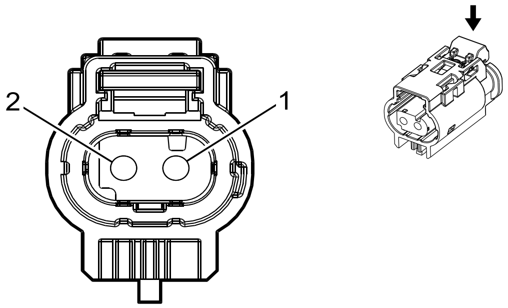
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130B Exhaust Gas Recirculation Temperature Sensor 2 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	L5P
2	0.5	BK/BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	L5P

B131A Exhaust Temperature Sensor 1



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 13583195
Service Connector: 19332719
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

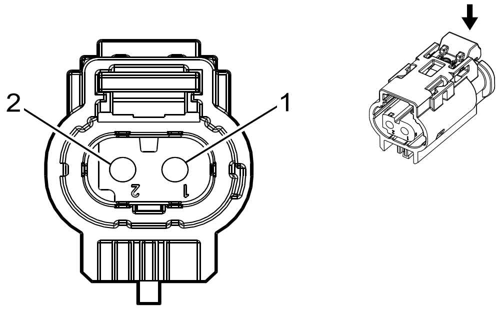
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131A Exhaust Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	5277	Exhaust Gas Temperature Sensor 1	I	L5P
2	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	L5P

B131B Exhaust Temperature Sensor 2



3747580

Connector Part Information

Harness Type: Engine
OEM Connector: 13583197
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed

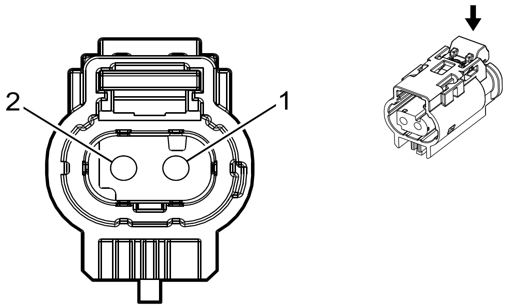
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131B Exhaust Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/GN	5377	Exhaust Gas Temperature Sensor 2	I	L5P
2	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	L5P

B131C Exhaust Temperature Sensor 3



3747581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

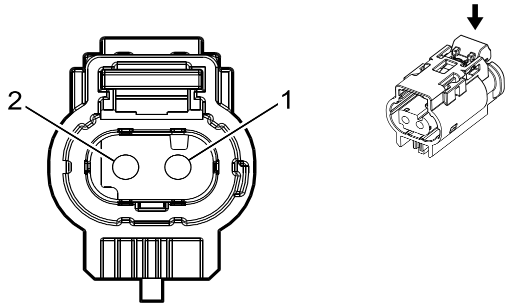
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131C Exhaust Temperature Sensor 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/GN	5378	Exhaust Gas Temperature Sensor 3	I	—
2	0.5	BK/GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—

B131D Exhaust Temperature Sensor 4



3747581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

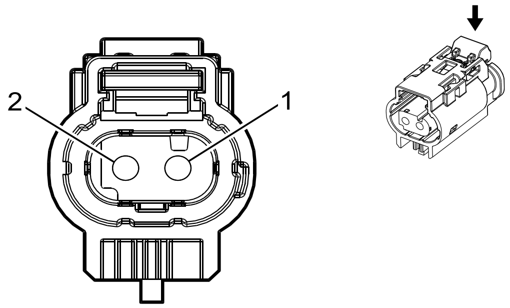
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131D Exhaust Temperature Sensor 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—
2	0.5	BK/GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—

B131E Exhaust Temperature Sensor 5



3747581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

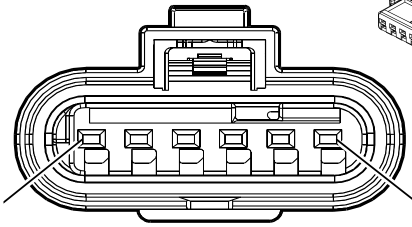
Terminal Part Information

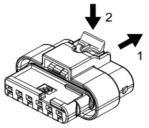
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131E Exhaust Temperature Sensor 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—
2	0.5	BK/VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—

B136 Exhaust Particulate Matter Sensor (L5P)





4773319

Connector Part Information

Harness Type: Chassis
OEM Connector: 33214285
Service Connector: 19367746
Description: 6-Way F 1.2 MCON-CB Series, Sealed (BN)

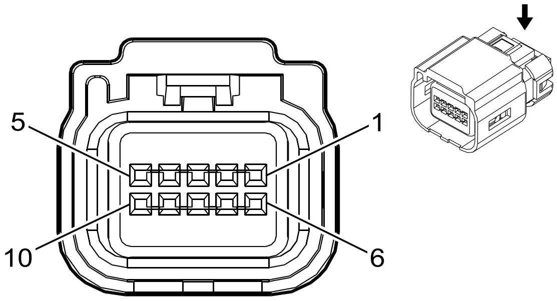
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B136 Exhaust Particulate Matter Sensor (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	2150	Ground	I	—
2	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
3	0.5	WH/YE	4499	High Speed GMLAN Serial Data (-) 7	I	—
4	0.5	BU/YE	4498	High Speed GMLAN Serial Data (+) 7	I	—
5	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
6	1.5	VT/BU	3674	NOx Sensor 1 Control	I	—

B137B Power Steering Shaft Torque/Position Sensor (1500)



3608468

Connector Part Information

Harness Type: Power Steering Jumper
OEM Connector: 28249221
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series, Sealed (BN)

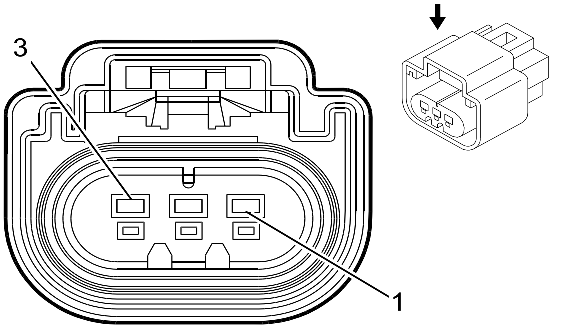
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B137B Power Steering Shaft Torque/Position Sensor (1500)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/GN	—	TRQ2 PWM Q2	I	—
2	0.5	TN	—	SDA	I	—
3	0.5	RD	—	5-Volt Reference	I	—
4	0.5	BK	—	Low Reference	I	—
5	0.5	WH	—	TRQ1 PWM Q1	I	—
6	0.5	VT	—	SCL	I	—
7	0.5	GN/BU	—	TOR IN 2	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	GN	—	TOR IN 1	I	—
10	—	—	—	Not Occupied	—	—

B150 Fuel Tank Pressure Sensor



1962078

Connector Part Information

Harness Type: Chassis
OEM Connector: 13511996
Service Connector: 13580873
Description: 3-Way F 150 GT Series, Sealed (GY)

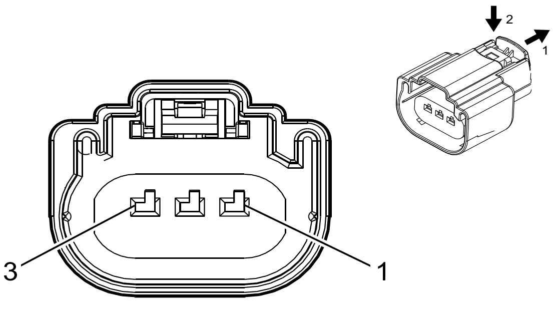
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
2	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
3	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—

B152LF Suspension Position Sensor - Left Front



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 19356431
Description: 3-Way F 150 MX Series, Sealed (GY)

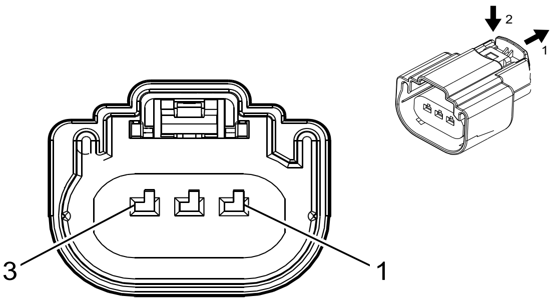
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B152LF Suspension Position Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/RD	1205	Left Front Strut Position Sensor 5V Reference	I	—
2	0.5	BK/BU	1206	Left Front Strut Position Sensor Low Reference	I	—
3	0.5	BN/WH	1207	Left Front Strut Position Sensor Signal	I	—

B152LR Suspension Position Sensor - Left Rear



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 19356431
Description: 3-Way F 150 MX Series, Sealed (GY)

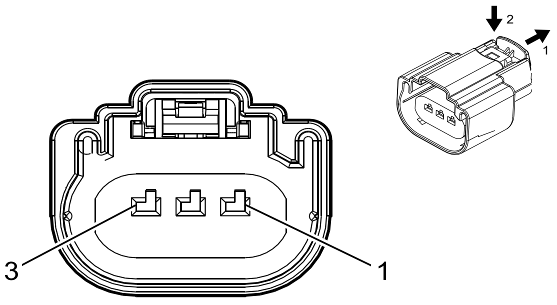
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B152LR Suspension Position Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/RD	1208	Left Rear Strut Position Sensor 5V Reference	I	—
2	0.5	BK/GN	1209	Left Rear Strut Position Sensor Low Reference	I	—
3	0.5	GN/WH	1210	Left Rear Strut Position Sensor Signal	I	—

B152RF Suspension Position Sensor - Right Front



Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 19356431
Description: 3-Way F 150 MX Series, Sealed (GY)

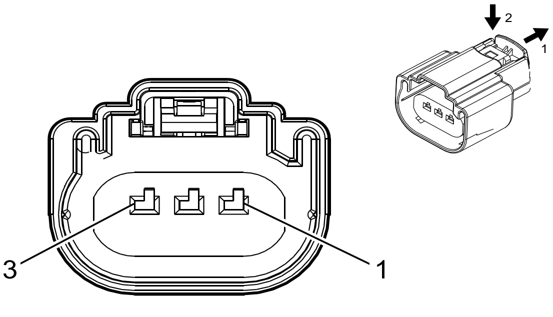
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B152RF Suspension Position Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	1211	Right Front Strut Position Sensor 5V Reference	I	—
2	0.5	BK/GY	1212	Right Front Strut Position Sensor Low Reference	I	—
3	0.5	YE/WH	1213	Right Front Strut Position Sensor Signal	I	—

B152RR Suspension Position Sensor - Right Rear



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 19356431
Description: 3-Way F 150 MX Series, Sealed (GY)

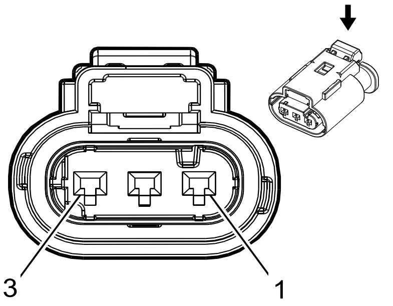
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B152RR Suspension Position Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/RD	1214	Right Rear Strut Position Sensor 5V Reference	I	—
2	0.5	BK/YE	1215	Right Rear Strut Position Sensor Low Reference	I	—
3	0.5	GN/GY	1216	Right Rear Strut Position Sensor Signal	I	—

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor (L5P)



2717069

Connector Part Information

Harness Type: Chassis
OEM Connector: 13763990
Service Connector: 19299690
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

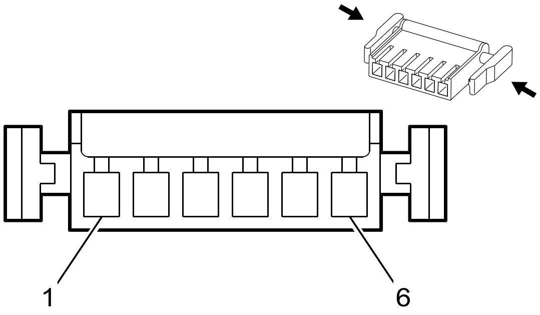
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	6053	Exhaust Pressure Sensor Signal 1	I	—
2	0.5	BK/YE	6055	Exhaust Pressure Sensor Low Reference 1	I	—
3	0.5	WH/RD	6054	Exhaust Pressure Sensor 5V Reference 1	I	—

B165 Content Theft Deterrent Sensor Module (UTU/UTV)



2173602

Connector Part Information

Harness Type: Overhead Console
OEM Connector: 24419225
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

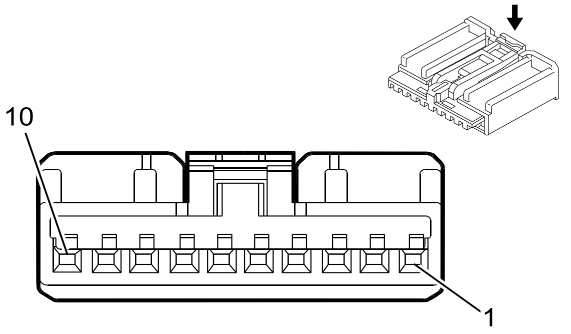
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B165 Content Theft Deterrent Sensor Module (UTU/UTV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT/BK	5068	Intrusion Sensor Switch Disable Signal	I	—
2	—	YE/BU	3278	Intrusion Sensor Switch LED Control	I	—
3	—	RD/BU	4540	Battery Positive Voltage	I	—
4	—	GN/BN	6132	Local Interconnect Network Serial Data Bus 1	I	—
5	—	BK	1050	Ground	I	—
6	—	—	—	Not Occupied	—	—

B174W Frontview Camera - Windshield (UFL)



1862241

Connector Part Information

Harness Type: Headliner
OEM Connector: 13574592
Service Connector: 13576634
Description: 10-Way F 0.64 Kaizen Series (BK)

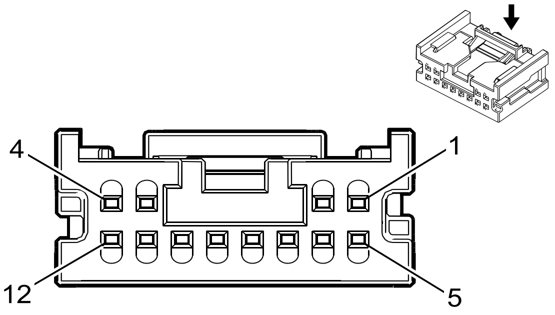
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

B174W Frontview Camera - Windshield (UFL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1050	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	RD/GN	3140	Battery Positive Voltage	I	—
4	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—

B174W Frontview Camera - Windshield (UHX)



3824362

Connector Part Information

Harness Type: Headliner
OEM Connector: 33235297
Service Connector: 13507121
Description: 12-Way F Mini 50 Series (BK)

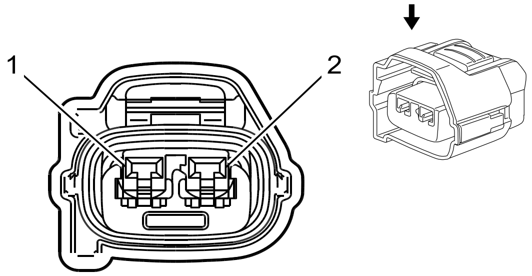
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19333221	EL-35616-58 (BK)	J-38125-553	Not Available	Not Available	Not Available	Not Available

B174W Frontview Camera - Windshield (UHX)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1050	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	RD/GN	3140	Battery Positive Voltage	I	—
4	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
5	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
6	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
7	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
8	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
9	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
10	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—
11	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
12	—	—	—	Not Occupied	—	—

B193A Charge Air Cooler Inlet Temperature Sensor



2388842

Connector Part Information

Harness Type: Engine
OEM Connector: 7283-7020-10
Service Connector: 13576415
Description: 2-Way F 090 Series, Sealed (D-GY)

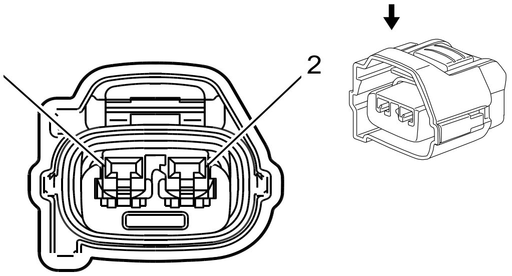
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B193A Charge Air Cooler Inlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	L5P
2	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	L5P

B193B Charge Air Cooler Outlet Temperature Sensor



2388842

Connector Part Information

Harness Type: Engine
OEM Connector: 15401053
Service Connector: 13576415
Description: 2-Way F 090 Series, Sealed (D-GY)

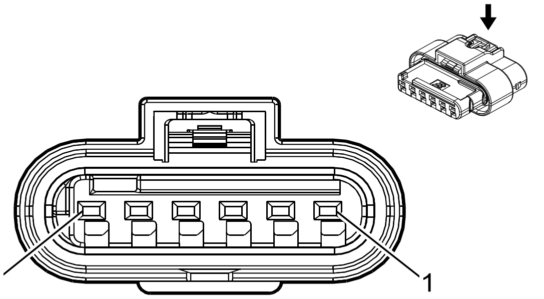
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B193B Charge Air Cooler Outlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
2	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—

B195A Nitrogen Oxides Sensor 1



3747584

Connector Part Information

Harness Type: Engine
OEM Connector: 13975341
Service Connector: 19329354
Description: 6-Way F 1.2 MCON-CB Series, Sealed (BN)

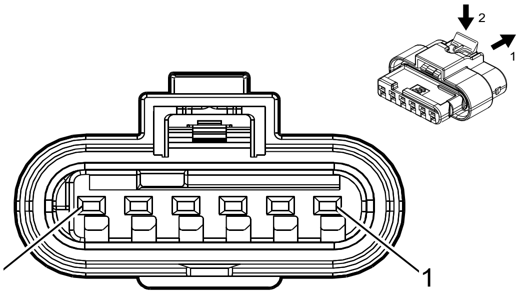
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B195A Nitrogen Oxides Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	3674	NOx Sensor 1 Control	I	—
2	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
3	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
4	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
5	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
6	0.75	BK/WH	451	Signal Ground	I	—

B195B Nitrogen Oxides Sensor 2 (L5P)



4773313

Connector Part Information

Harness Type: Chassis
OEM Connector: 33224620
Service Connector: 19367747
Description: 6-Way F 1.2 MCON-CB Series, Sealed (BN)

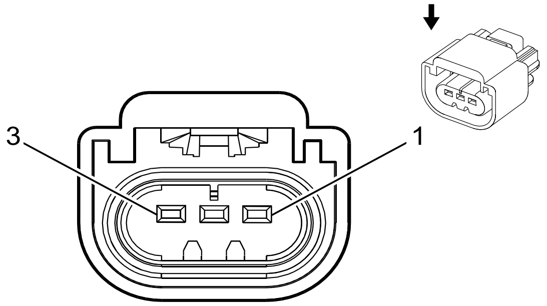
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B195B Nitrogen Oxides Sensor 2 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	VT/BU	3674	NOx Sensor 1 Control	I	—
2	0.5	BU/YE	4498	High Speed GMLAN Serial Data (+) 7	I	—
3	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
4	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
5	0.5	WH/YE	4499	High Speed GMLAN Serial Data (-) 7	I	—
6	1.5	BK	2150	Ground	I	—

B198 Fuel Composition Sensor



2422393

Connector Part Information

Harness Type: Chassis
OEM Connector: 13511132
Service Connector: 19301582
Description: 3-Way F 150 GT Series, Sealed (BN)

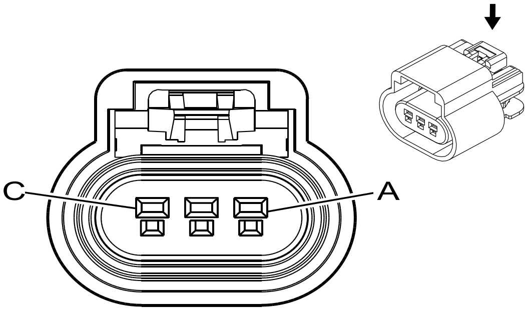
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B198 Fuel Composition Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
2	0.5	BK	2150	Ground	I	—
3	0.5	WH	1579	Fuel Temperature/Composition Signal	I	—

B227 Gear Position Sensor (NQH/L8B)



646415

Connector Part Information

Harness Type: Engine
OEM Connector: 15326808
Service Connector: 13580871
Description: 3-Way F 150 GT Series, Sealed (BK)

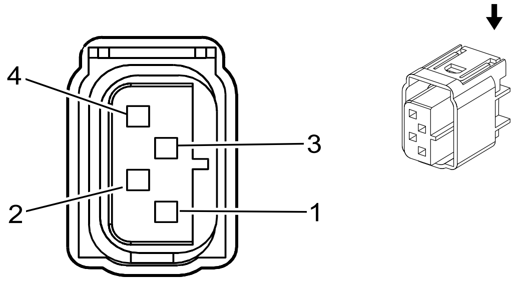
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B227 Gear Position Sensor (NQH/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	YE/BK	7478	Rotary Position Sensor Low Reference	I	—
B	0.5	WH/RD	7477	Rotary Position Sensor 5V Reference	I	—
C	0.5	WH/GN	7479	Rotary Position Sensor Signal	I	—

B229 Alternative Fuel Rail Pressure/Temperature Sensor (LC8)



810084

Connector Part Information

Harness Type: CNG Injector
OEM Connector: 1-967640-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series, Sealed (BK)

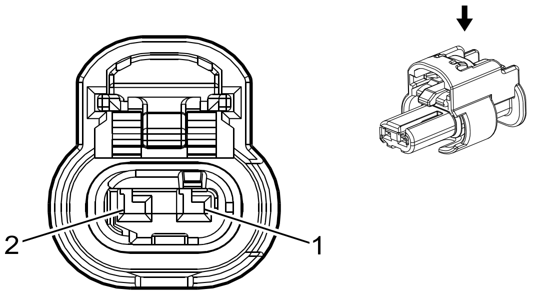
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B229 Alternative Fuel Rail Pressure/Temperature Sensor (LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	—	Ground	I	—
2	0.5	BU/GN	—	Alternative Fuel Pressure Sensor Signal	I	—
3	0.5	BU/BK	—	Temperature Sensor Signal	I	—
4	0.5	RD/WH	—	5–Volt Reference	I	—

B235 Starter/Generator Coolant Temperature Sensor



4649903

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33327048
Service Connector: 19366842
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

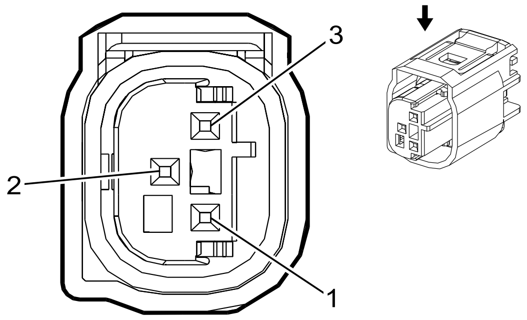
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B235 Starter/Generator Coolant Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/VT	3873	Powertrain Electronics Cooling Loop (PECL) Temperature Sensor Signal	I	—
2	0.5	BK/GY	3872	Powertrain Electronics Cooling Loop (PECL) Temperature Sensor Low Reference	I	—

B257 Alternative Fuel Pressure Sensor (LC8)



1243672

Connector Part Information

Harness Type: CNG Rear
OEM Connector: 2-967642-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F MQS Socket Housing, Sealed (BK)

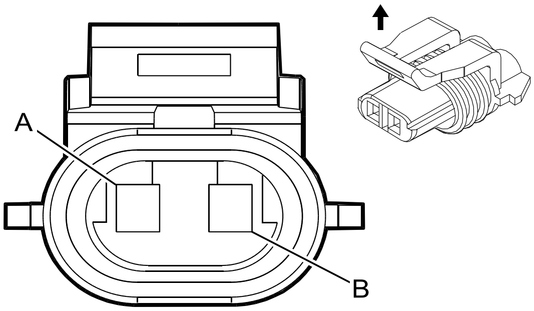
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B257 Alternative Fuel Pressure Sensor (LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	—	Alternative Fuel Tank Sensor Low Reference	I	—
2	0.5	BU/YE	—	Alternative Fuel Tank Pressure Signal	I	—
3	0.5	RD/WH	—	Alternative Fuel Tank Sensore Voltage Reference	I	—

B263 Alternative Fuel Tank Temperature Sensor (LC8)



537107

Connector Part Information

Harness Type: CNG Rear
OEM Connector: 12052644
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

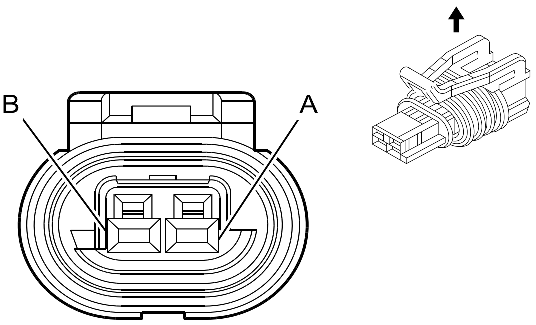
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B263 Alternative Fuel Tank Temperature Sensor (LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BU/RD	—	CNG Tank Sensor Temperature Signal	I	—
B	1	BK	—	Low Reference	I	—

B264 CNG High Pressure Regulator Temperature Sensor (LC8)



1538760

Connector Part Information

Harness Type: CNG Rear
OEM Connector: 15449028
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

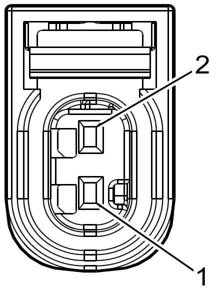
Terminal Part Information

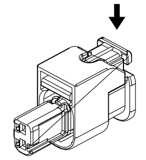
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B264 CNG High Pressure Regulator Temperature Sensor (LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BU/OG	—	Coolant Temperature Input	I	—
B	1	BK	—	Ground	I	—

B280 Automatic Transmission Accumulator Solenoid Valve (M5X)





4051102

Connector Part Information

Harness Type: Transmission
OEM Connector: 2138873-4
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed (BN)

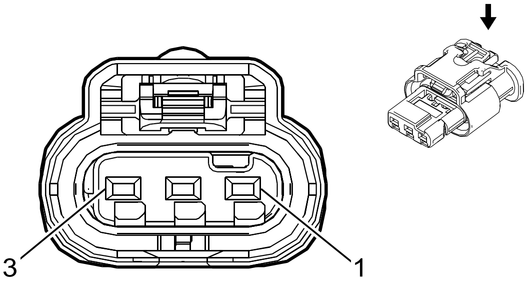
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B280 Automatic Transmission Accumulator Solenoid Valve (M5X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
2	0.5	WH/GY	4578	Surge Accumulator Solenoid Low Side Control	I	—

B295 Reductant Quality Sensor (L5P)



2889711

Connector Part Information

Harness Type: Reductant Fuel Pump
OEM Connector: 13884759
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCP Series, Sealed (BK)

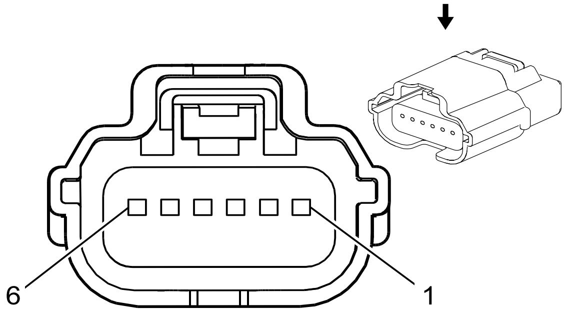
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B295 Reductant Quality Sensor (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	—	Quality Sensor Supply	I	—
2	0.5	BN	—	Quality Sent Data	I	—
3	0.5	BK	—	Quality Sensor Ground	I	—

B302 Power Steering Pressure Sensor (NV8)



1974974

Connector Part Information

Harness Type: Power Steering Control Module
OEM Connector: 31404-6132
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (BK)

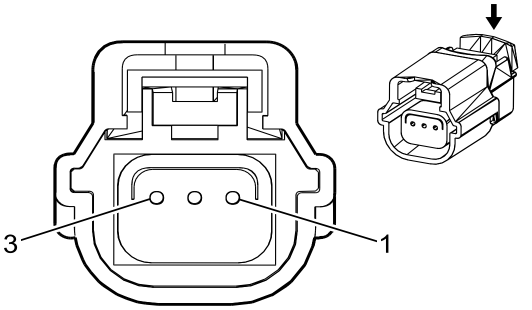
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B302 Power Steering Pressure Sensor (NV8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	RD	—	5-Volt Reference	I	—
3	0.5	GN	—	Right Pressure Sensor	I	—
4	0.5	BN	—	Left Pressure Sensor	I	—
5	0.5	BK	—	Low Reference	I	—
6	—	—	—	Not Occupied	—	—

B306A Parking Assist Sensor - Front Left Outer



1846469

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

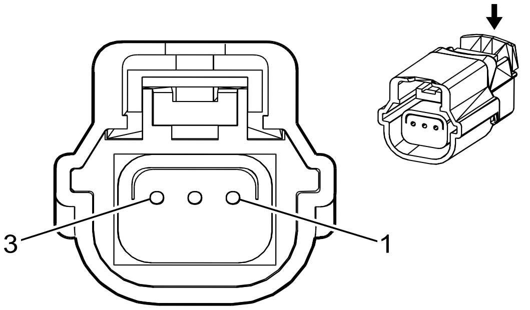
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306A Parking Assist Sensor - Front Left Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GN	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	VT/WH	5215	Front Parking Left Corner Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B306B Parking Assist Sensor - Front Left Middle



1846469

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

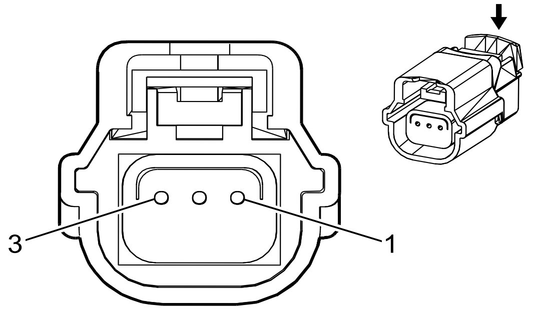
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306B Parking Assist Sensor - Front Left Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GN	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	YE/GY	5216	Front Parking Left Mid Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B306C Parking Assist Sensor - Front Right Middle



1846469

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

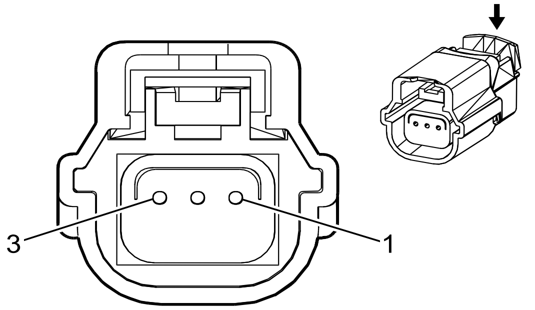
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306C Parking Assist Sensor - Front Right Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GN	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	VT/GY	5218	Front Parking Right Mid Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B306D Parking Assist Sensor - Front Right Outer



1846469

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

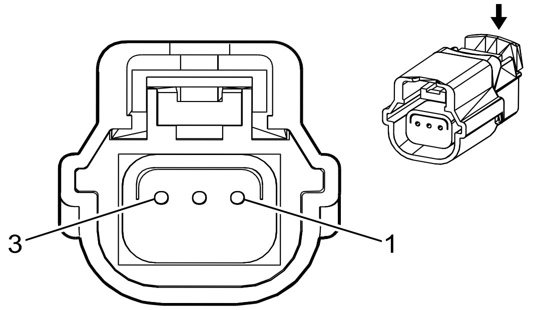
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306D Parking Assist Sensor - Front Right Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GN	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	WH/GY	5217	Front Parking Right Corner Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B306E Parking Assist Sensor - Rear Left Outer



1846469

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

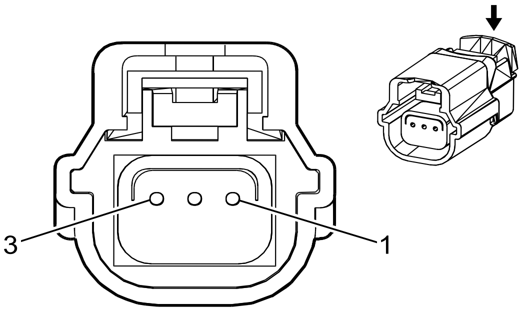
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306E Parking Assist Sensor - Rear Left Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	YE	2375	Left Rear Corner Object Sensor Signal	I	—
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

B306F Parking Assist Sensor - Rear Left Middle



1846469

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

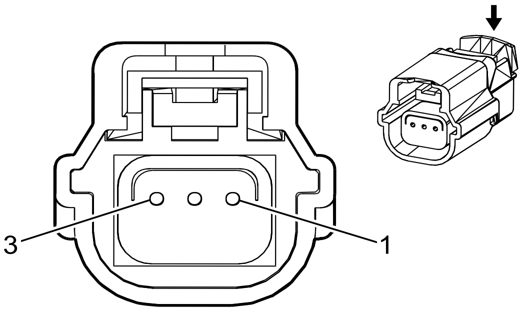
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306F Parking Assist Sensor - Rear Left Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	YE/BU	2376	Left Rear Middle Object Sensor Signal	I	—
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

B306G Parking Assist Sensor - Rear Right Middle



1846469

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

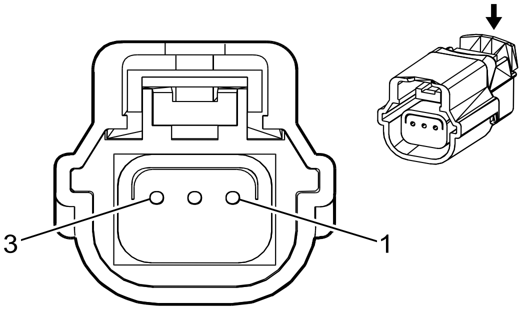
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306G Parking Assist Sensor - Rear Right Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	YE/WH	2377	Right Rear Middle Object Sensor Signal	I	—
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

B306H Parking Assist Sensor - Rear Right Outer



1846469

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13512481
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

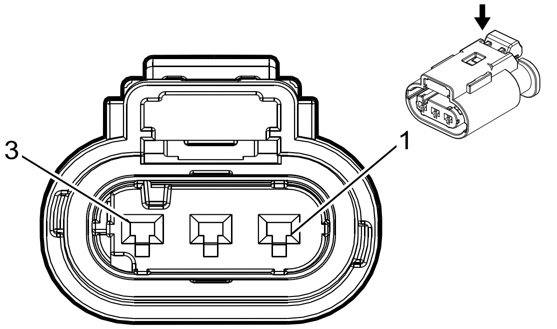
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306H Parking Assist Sensor - Rear Right Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	YE/VT	2378	Right Rear Corner Object Sensor Signal	I	—
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

B310 Fuel Pressure/Temperature Sensor (1500)



3240107

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: 13503573
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

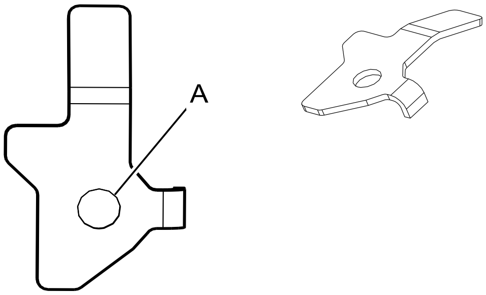
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B310 Fuel Pressure/Temperature Sensor (1500)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	BN/RD BK/GN	2917 2919	Fuel Rail Pressure Sensor 5V Reference Fuel Rail Pressure Sensor Low Reference	I I	5V1 L83/L86/L8B
2	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	L83/L86/L8B
3	0.5 0.5	BK/GN BN/RD	2919 2917	Fuel Rail Pressure Sensor Low Reference Fuel Rail Pressure Sensor 5V Reference	I I	5V1 L83/L86/L8B

C4A Hybrid/EV Battery Section 1 X1 (HP5)



4457285

Connector Part Information

Harness Type: High Voltage Battery Manual Service Disconnect
OEM Connector: 15544777
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

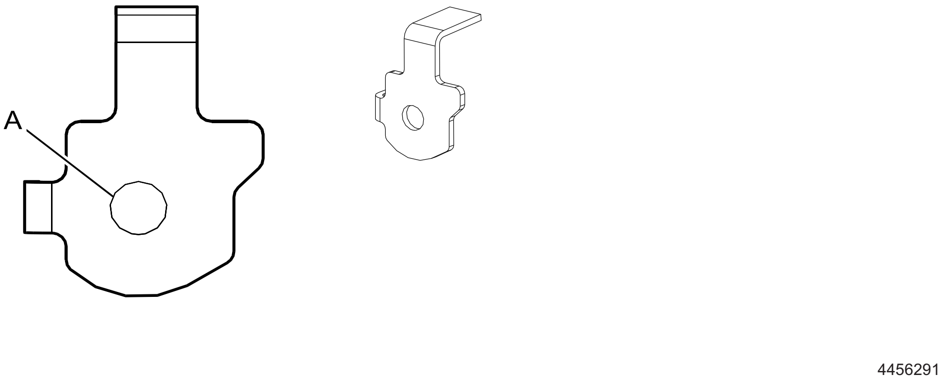
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

C4A Hybrid/EV Battery Section 1 X1 (HP5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	12	OG	3970	High Voltage Battery 4 (+)	I	—

C4A Hybrid/EV Battery Section 1 X2 (HP5)



Connector Part Information

Harness Type: High Voltage Battery Positive
OEM Connector: 15544776
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

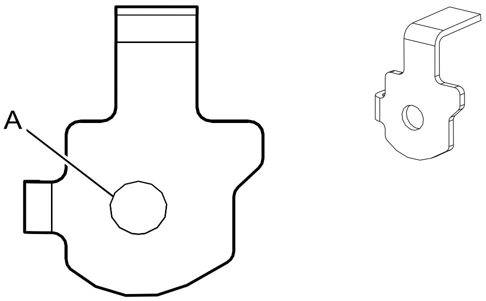
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

C4A Hybrid/EV Battery Section 1 X2 (HP5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	12	OG	5084	High Voltage Battery (+)	I	—

C4B Hybrid/EV Battery Section 2 X2 (HP5)



4456291

Connector Part Information

Harness Type: High Voltage Battery Manual Service Disconnect
OEM Connector: 15544776
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

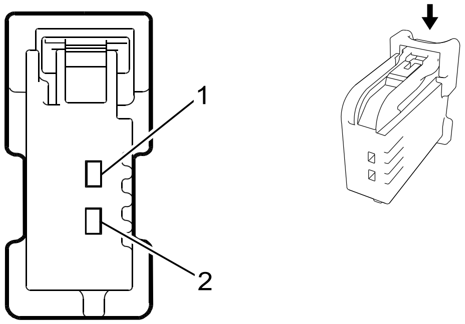
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

C4B Hybrid/EV Battery Section 2 X2 (HP5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	12	OG	3970	High Voltage Battery 4 (+)	I	—

E1L Accent Lamp - Overhead Console



2173586

Connector Part Information

Harness Type: Headliner
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series (BK)

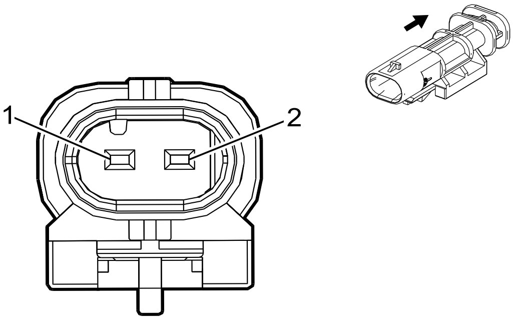
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E1L Accent Lamp - Overhead Console

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/GN	7558	LED Ambient Lighting Control 2	I	—
2	0.35	BK	1050	Ground	I	—

E2A Marker Lamp - Endgate



2474755

Connector Part Information

Harness Type: License Lamp
OEM Connector: 13788295
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

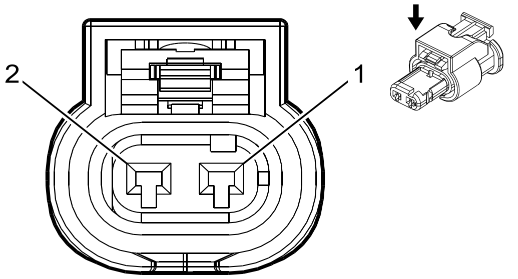
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E2A Marker Lamp - Endgate

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	309	Right Park Lamp Control	I	—
2	0.5	BK	1750	Ground	I	—

E3LF Rear Fender Clearance Lamp - Left Front



2698576

Connector Part Information

Harness Type: License Lamp
OEM Connector: 13627836
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

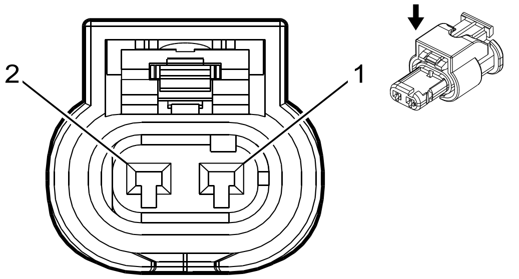
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E3LF Rear Fender Clearance Lamp - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/GY	709	Left Park Lamp Control	I	—
2	0.5	BK	1750	Ground	I	—

E3LR Rear Fender Clearance Lamp - Left Rear



2698576

Connector Part Information

Harness Type: License Lamp
OEM Connector: 13627836
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

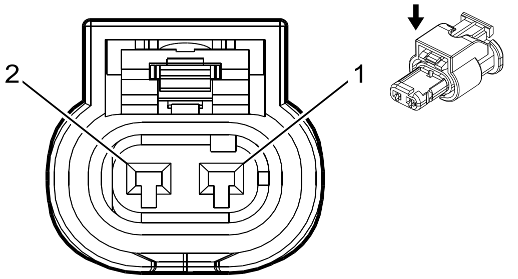
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E3LR Rear Fender Clearance Lamp - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/GY	709	Left Park Lamp Control	I	—
2	0.5	BK	1750	Ground	I	—

E3RF Rear Fender Clearance Lamp - Right Front



Connector Part Information

Harness Type: License Lamp
OEM Connector: 13627836
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

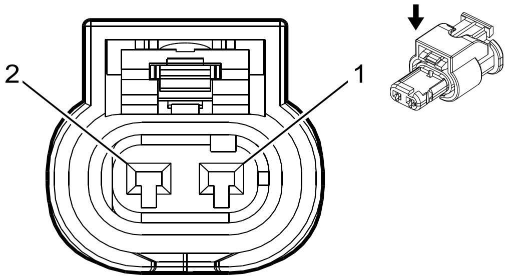
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E3RF Rear Fender Clearance Lamp - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	309	Right Park Lamp Control	I	—
2	0.5	BK	1750	Ground	I	—

E3RR Rear Fender Clearance Lamp - Right Rear



2698576

Connector Part Information

Harness Type: License Lamp
OEM Connector: 13627836
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

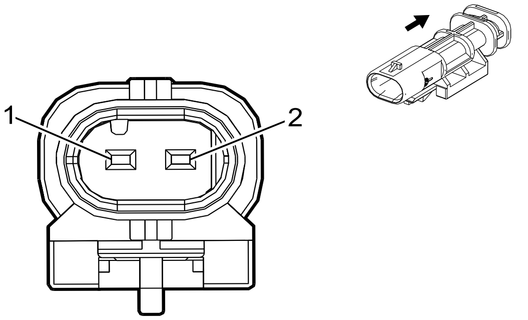
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E3RR Rear Fender Clearance Lamp - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	309	Right Park Lamp Control	I	—
2	0.5	BK	1750	Ground	I	—

E6 Center High Mounted Stop Lamp (ZYD)



2474755

Connector Part Information

Harness Type: CHMSL Jumper
OEM Connector: 13591337
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

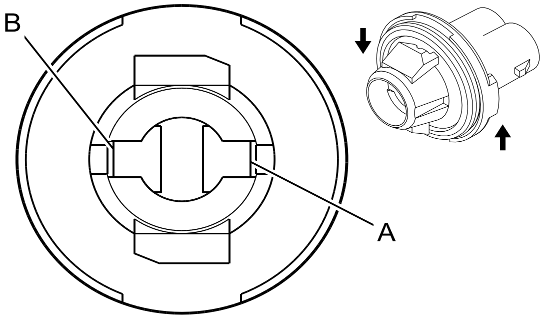
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E6 Center High Mounted Stop Lamp (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/GY	1054	Stop Lamp Control	I	—
2	0.5	BK	1450	Ground	I	—

E7 License Plate Lamp (9J4)



744036

Connector Part Information

Harness Type: License Lamp Jumper
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2 (D-GY)

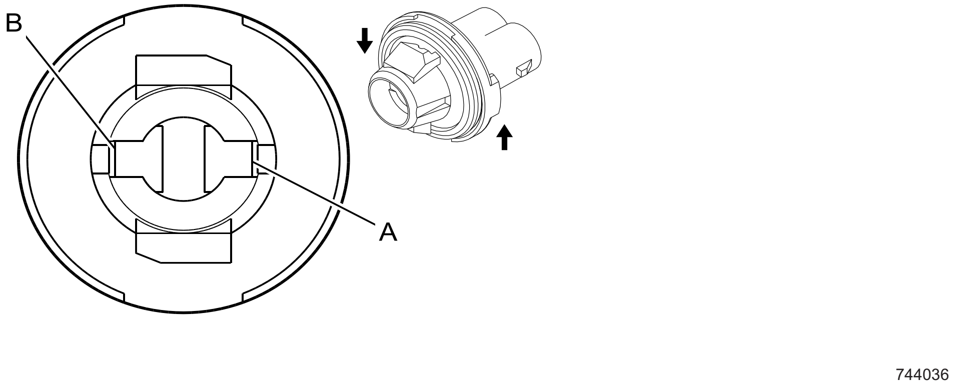
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E7 License Plate Lamp (9J4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN/YE	6846	Rear License Lamp Control	I	—
B	0.5	BK	1750	Ground	I	—

E7L License Plate Lamp - Left



Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2 (D-GY)

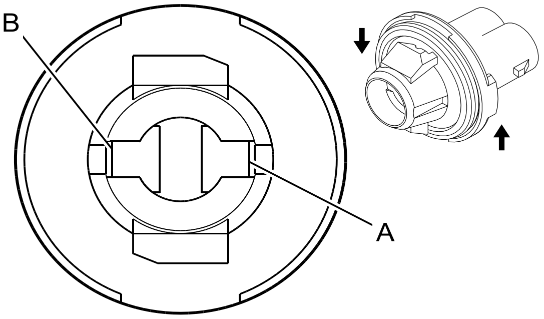
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E7L License Plate Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN/YE	6846	Rear License Lamp Control	I	—
B	0.5	BK	1750	Ground	I	—

E7R License Plate Lamp - Right



744036

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2 (D-GY)

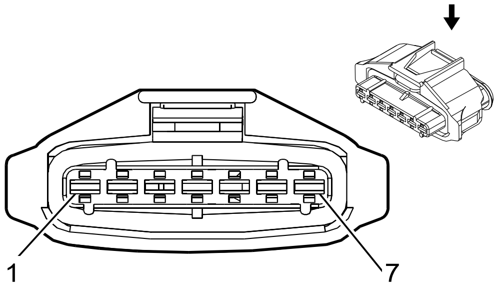
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E7R License Plate Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN/YE	6846	Rear License Lamp Control	I	—
B	0.5	BK	1750	Ground	I	—

E11A Fuel Heater/Water in Fuel Sensor



2537256

Connector Part Information

Harness Type: Chassis
OEM Connector: 10774827
Service Connector: 19354080
Description: 7-Way F 2.8 Junior Power Timer Series, Sealed (BK)

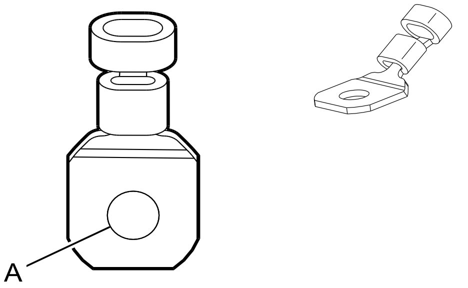
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E11A Fuel Heater/Water in Fuel Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/VT	412	Fuel Filter Temperature Sensor Low Reference	I	—
2	0.5	BN/VT	455	Fuel Filter Temperature Signal	I	—
3	0.5	BU/YE	6861	Water In Fuel Sensor Signal	I	—
4	0.5	BK/BU	6863	Water In Fuel Sensor Low Reference	I	—
5	—	—	—	Not Occupied	—	—
6	2.5	VT/GN	355	Fuel Filter Heater Voltage	I	—
7	2.5	BK	2150	Ground	I	—

E12A Glow Plug 1



3471503

Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

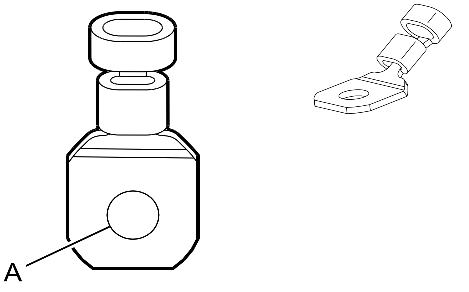
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12A Glow Plug 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY/BU	1581	Glow Plug Control 1	I	L5P

E12B Glow Plug 2



3471503

Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

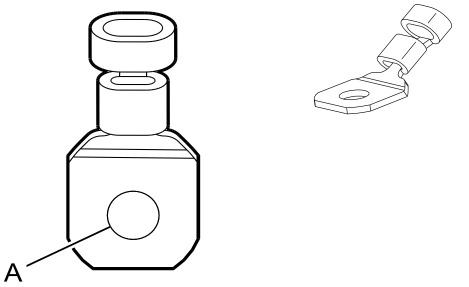
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12B Glow Plug 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY/BN	1582	Glow Plug Control 2	I	L5P

E12C Glow Plug 3



3471503

Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

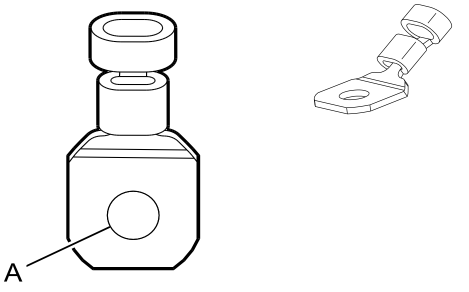
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12C Glow Plug 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY/GN	1583	Glow Plug Control 3	I	L5P

E12D Glow Plug 4



Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

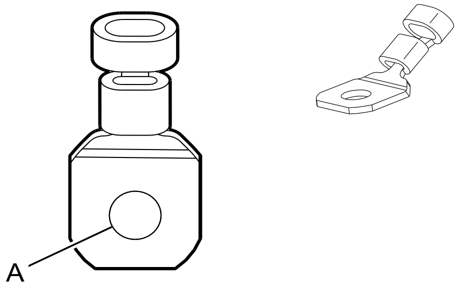
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12D Glow Plug 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY/YE	1584	Glow Plug Control 4	I	L5P

E12E Glow Plug 5



3471503

Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

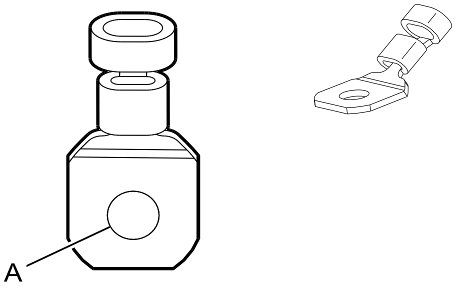
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12E Glow Plug 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY/WH	1585	Glow Plug Control 5	I	L5P

E12F Glow Plug 6



3471503

Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

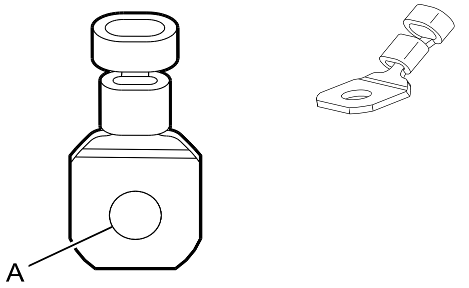
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12F Glow Plug 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY/VT	1586	Glow Plug Control 6	I	L5P

E12G Glow Plug 7



3471503

Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

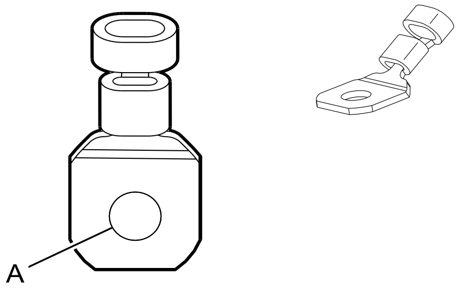
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12G Glow Plug 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	WH/BK	1587	Glow Plug Control 7	I	L5P

E12H Glow Plug 8



3471503

Connector Part Information

Harness Type: Engine
OEM Connector: 7009-1338-02
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

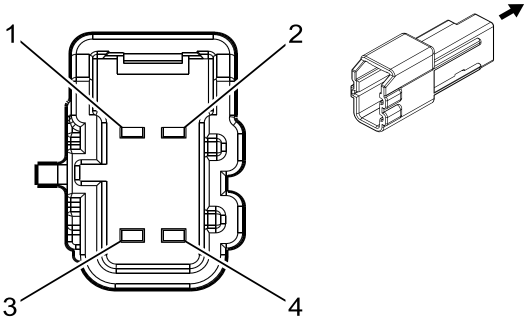
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12H Glow Plug 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	WH/BU	1588	Glow Plug Control 8	I	L5P

E14A Seat Heating Element - Driver Back



4166306

Connector Part Information

Harness Type: Driver Back Jumper Harness
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

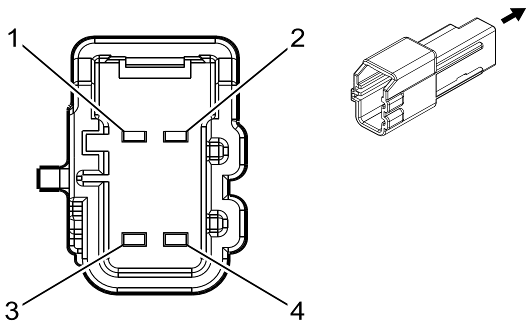
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14A Seat Heating Element - Driver Back

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	2432	Driver Heated Back Element Control	I	—
2	0.5	BU	2425	Driver Heated Back NTC Signal	I	—
3	0.5	BK/YE	2080	Driver Heated Seat NTC Low Reference	I	—
4	0.75	BN/BK	2078	Driver Heated Seat Element Low Reference	I	—

E14B Seat Heating Element - Driver Cushion



4210503

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

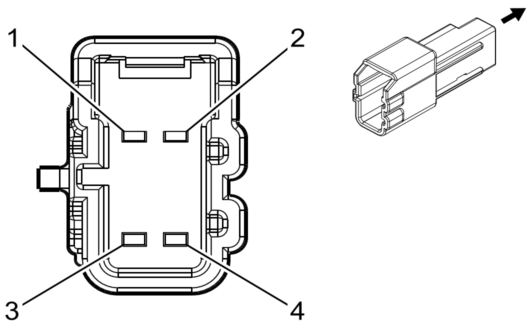
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14B Seat Heating Element - Driver Cushion

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/VT	2077	Driver Heated Seat Element Control	I	—
2	0.5	YE/GY	2079	Driver Heated Seat NTC Signal	I	—
3	0.5	BN/YE	2080	Driver Heated Seat NTC Low Reference	I	—
4	0.75	BN/BK	2078	Driver Heated Seat Element Low Reference	I	—

E14C Seat Heating Element - Passenger Back



4166306

Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

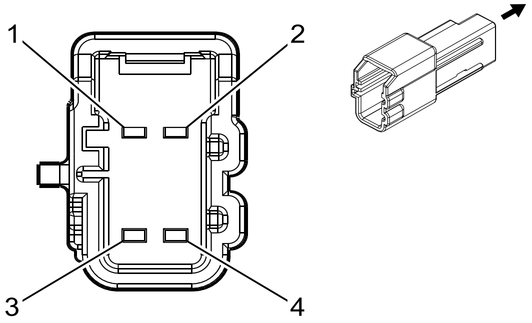
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14C Seat Heating Element - Passenger Back

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/BN	2481	Passenger Heated Back Element Control	I	—
2	0.5	WH/BU	2436	Passenger Heated Back NTC Signal	I	—
3	0.5	BK/GN	2482	Passenger Heated Back NTC Low Reference	I	—
4	0.75	GY/BK	2480	Passenger Heated Seat Element Low Reference	I	—

E14D Seat Heating Element - Passenger Cushion



4210503

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

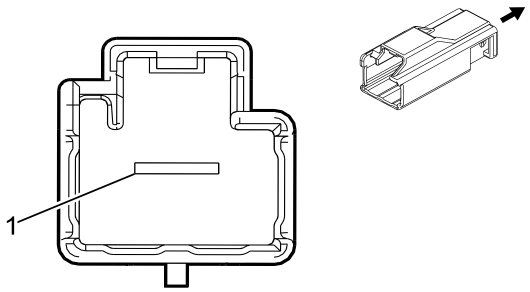
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14D Seat Heating Element - Passenger Cushion

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/BU	2479	Passenger Heated Seat Element Control	I	—
2	0.5	WH/GY	2434	Passenger Heated Seat NTC Signal	I	—
3	0.5	BK/GY	2435	Passenger Heated Seat NTC Low Reference	I	—
4	0.75	GY/BK	2480	Passenger Heated Seat Element Low Reference	I	—

E18 Rear Defogger Grid



3240098

Connector Part Information

Harness Type: Body
OEM Connector: 13953570
Service Connector: 19333227
Description: 1-Way M 6.3 Series (BK)

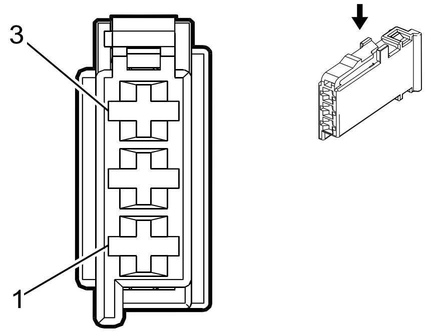
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E18 Rear Defogger Grid

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BN/VT	293	Rear Defog Element Control	I	—

E28 Center Console Compartment Lamp



2039656

Connector Part Information

Harness Type: Floor Console
OEM Connector: 10865339
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.6 Micro-Timer Series (BK)

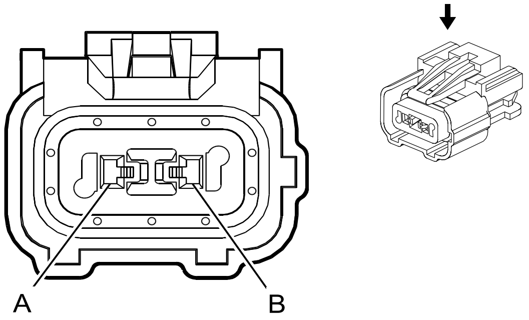
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E28 Center Console Compartment Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	6815	Inadvertent Power Control	I	—
2	0.75	BK	1050	Ground	I	—
3	—	—	—	Not Occupied	—	—

E29LF Fog Lamp - Left Front (T3U+V46+(X88/Z88))



1711019

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 15489797
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Series (BK)

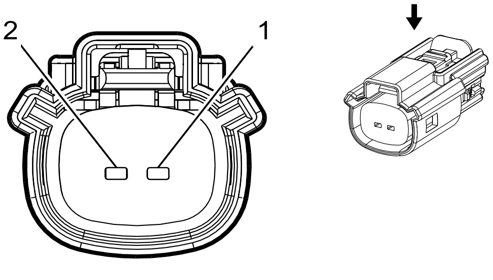
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E29LF Fog Lamp - Left Front (T3U+V46+(X88/Z88))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN/VT	2234	Front Fog Lamp Control	I	—
B	0.5	BK	150	Ground	I	—

E29LF Fog Lamp - Left Front (V46+V76+(X88/Z88)-SLT)



2474713

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 13782480
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series, Sealed (BK)

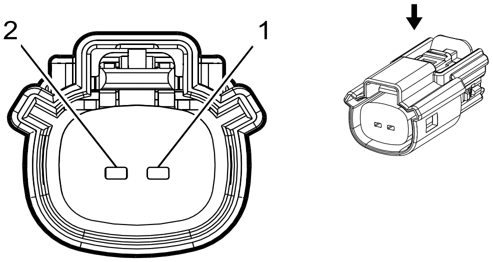
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E29LF Fog Lamp - Left Front (V46+V76+(X88/Z88)-SLT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/VT	2234	Front Fog Lamp Control	I	—
2	0.5	BK	150	Ground	I	—

E29RF Fog Lamp - Right Front (UD5)



Connector Part Information

Harness Type: Front Fascia
OEM Connector: 13782480
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series, Sealed (BK)

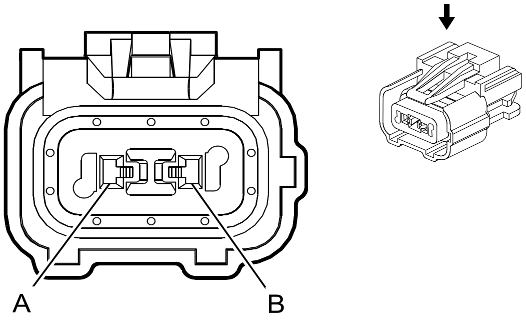
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E29RF Fog Lamp - Right Front (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/VT	2234	Front Fog Lamp Control	I	—
2	0.5	BK	250	Ground	I	—

E29RF Fog Lamp - Right Front (-UD5)



1711019

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 15489797
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Series (BK)

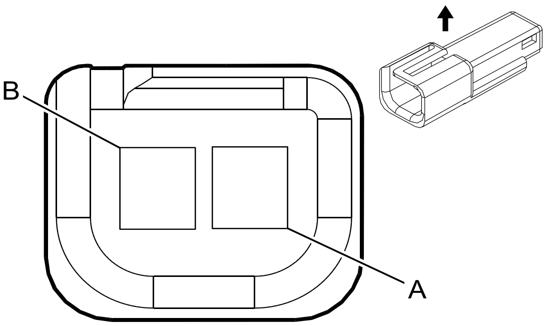
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E29RF Fog Lamp - Right Front (-UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN/VT	2234	Front Fog Lamp Control	I	—
B	0.5	BK	250	Ground	I	—

E31L Sunshade Mirror Lamp - Left



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

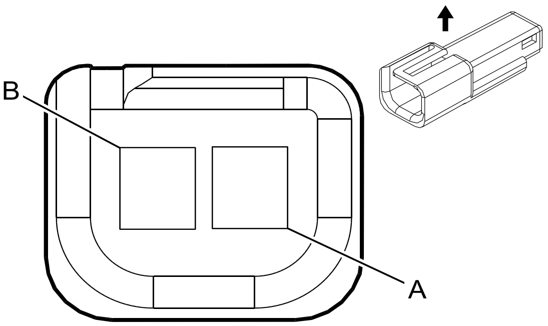
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E31L Sunshade Mirror Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	—
B	0.5	BK	1050	Ground	I	—

E31R Sunshade Mirror Lamp - Right



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

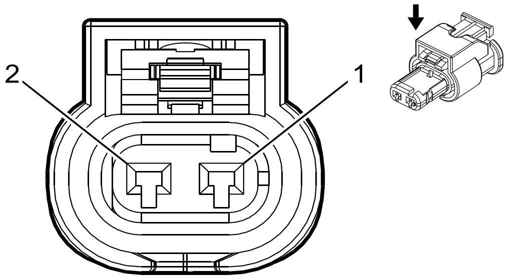
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E31R Sunshade Mirror Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	—
B	0.5	BK	1050	Ground	I	—

E33LF Cargo Lamp - Left Front (ZYD)



2698576

Connector Part Information

Harness Type: Left Bin Jumper
OEM Connector: 13580179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

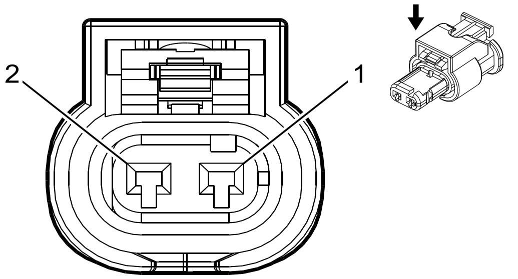
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E33LF Cargo Lamp - Left Front (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1450	Ground	I	—
2	0.75	WH/VT	1430	Exterior Courtesy Lamp Control	I	—

E33LR Cargo Lamp - Left Rear (ZYD)



2698576

Connector Part Information

Harness Type: Left Bin Jumper
OEM Connector: 13580179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

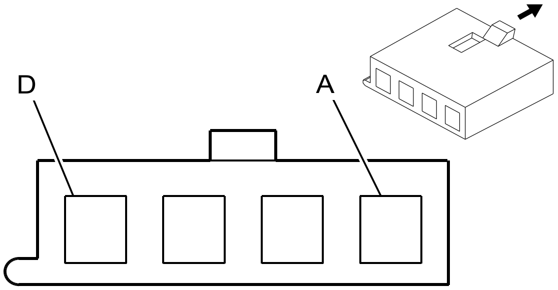
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E33LR Cargo Lamp - Left Rear (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1450	Ground	I	—
2	0.752	WH/VT	1430	Exterior Courtesy Lamp Control	I	—

E37B Dome/Reading Lamps - 2nd Row



287981

Connector Part Information

Harness Type: Headliner
OEM Connector: 12092162
Service Connector: 15306021
Description: 4-Way F 150 Metri-Pack Series (BK)

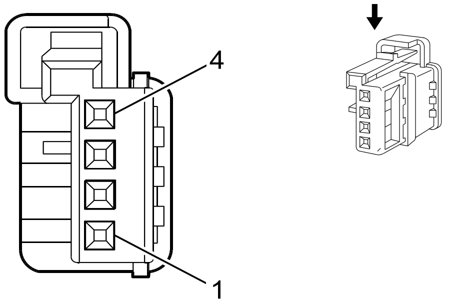
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E37B Dome/Reading Lamps - 2nd Row

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	—
B	0.5	BK	1050	Ground	I	—
C	0.5	GY	157	Interior Lamp Control	I	—
D	0.5	YE	6817	LED Backlight Dimming Control	I	—

E37EL Dome/Reading Lamps - Front Overhead Console Left



2904464

Connector Part Information

Harness Type: Headliner
OEM Connector: 10812166
Service Connector: 19119349
Description: 4-Way F 0.64 Micro-Quadlock Series (GY)

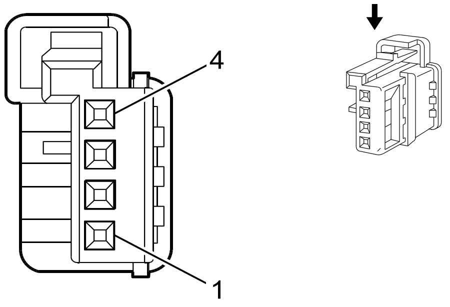
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E37EL Dome/Reading Lamps - Front Overhead Console Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	—
2	0.5	WH/BN	6815	Inadvertent Power Control	I	—
3	0.5	GY	157	Interior Lamp Control	I	—
4	0.5	BK	1050	Ground	I	—

E37ER Dome/Reading Lamps - Front Overhead Console Right



2904464

Connector Part Information

Harness Type: Headliner
OEM Connector: 10812166
Service Connector: 19119349
Description: 4-Way F 0.64 Micro-Quadlock Series (GY)

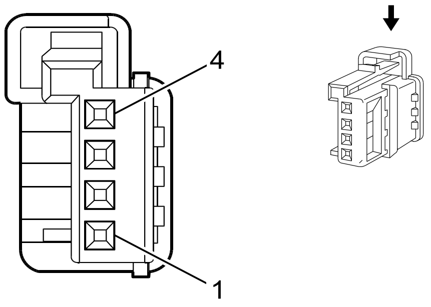
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E37ER Dome/Reading Lamps - Front Overhead Console Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	—
2	0.5	WH/BN	6815	Inadvertent Power Control	I	—
3	0.5	GY	157	Interior Lamp Control	I	—
4	0.5	BK	1050	Ground	I	—

E40 Electrical Auxiliary Heater X1 (C32)



2179793

Connector Part Information

Harness Type: HVAC
OEM Connector: 13216377
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

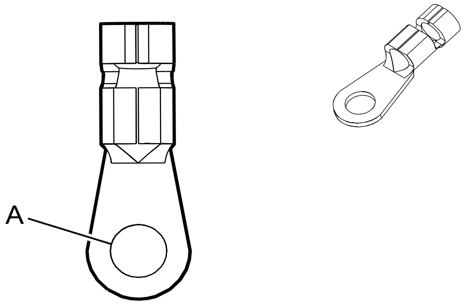
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E40 Electrical Auxiliary Heater X1 (C32)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	3195	Auxiliary Heater Control	I	—
2	0.5	VT/GY	539	Run/Crank Ignition 1 Voltage	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	YE/GN	3196	Auxiliary Heater Status Signal	I	—

E40 Electrical Auxiliary Heater X2 (C32)



2268698

Connector Part Information

Harness Type: HVAC
OEM Connector: 12129598
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

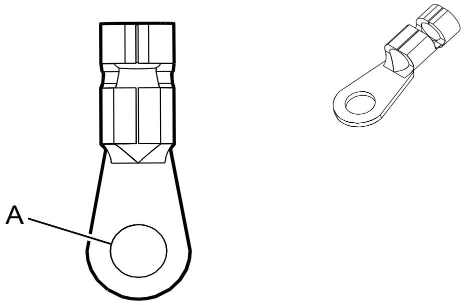
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E40 Electrical Auxiliary Heater X2 (C32)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD/GY	642	Battery Positive Voltage	I	—

E40 Electrical Auxiliary Heater X3 (C32)



2268698

Connector Part Information

Harness Type: HVAC
OEM Connector: 12129598
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

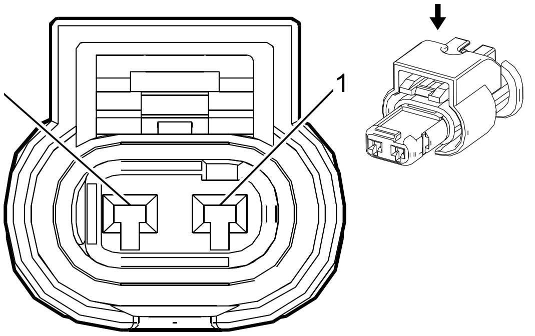
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E40 Electrical Auxiliary Heater X3 (C32)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	BK	1050	Ground	I	—

E52A Reductant Line Heater 1 (L5P)



2474752

Connector Part Information

Harness Type: Reductant Fuel Pump
OEM Connector: 13927761
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

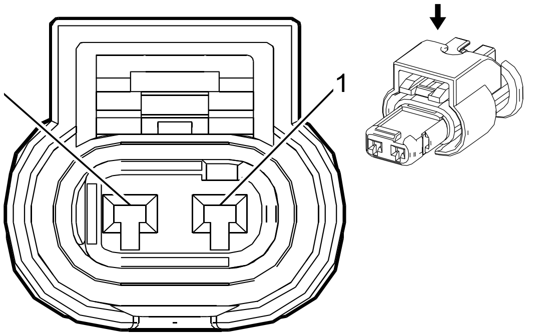
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E52A Reductant Line Heater 1 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.0	YE	—	Line Heat Ground	I	—
2	1.0	BN	—	Line Heater Supply	I	—

E52B Reductant Line Heater 2 (L5P)



2474752

Connector Part Information

Harness Type: Line Heater
OEM Connector: 13586143
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

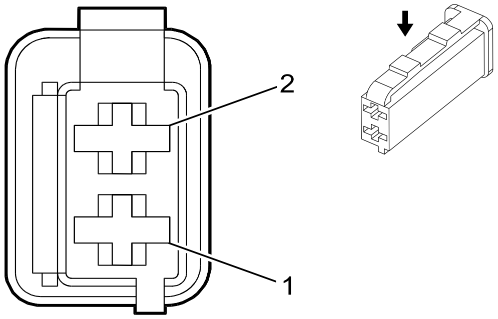
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E52B Reductant Line Heater 2 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.0	YE	—	Line Heat Ground	I	—
2	1.0	BN	—	Line Heater Supply	I	—

E63D Flood Lamp - Driver Door Handle



2339593

Connector Part Information

Harness Type: Door Lock
OEM Connector: 13670097
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

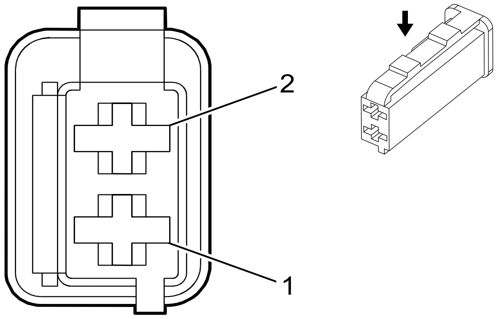
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E63D Flood Lamp - Driver Door Handle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	—
2	0.35	BK	1150	Ground	I	—

E63P Flood Lamp - Passenger Door Handle



2339593

Connector Part Information

Harness Type: Door Lock
OEM Connector: 13670097
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

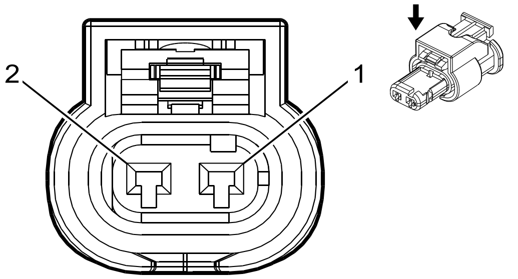
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E63P Flood Lamp - Passenger Door Handle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	—
2	0.35	BK	1250	Ground	I	—

E87L Cargo Lamp - Left Cargo Stowage Box (ZYD)



2698576

Connector Part Information

Harness Type: Left Bin Jumper
OEM Connector: 13580179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

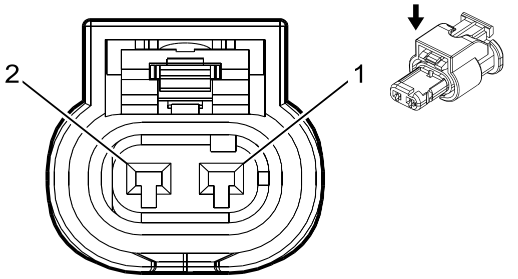
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E87L Cargo Lamp - Left Cargo Stowage Box (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	9200	Low Reference	I	—
2	0.75	WH/BN	6815	Inadvertent Power Control	I	—

E87R Cargo Lamp - Right Cargo Stowage Box (ZYD)



2698576

Connector Part Information

Harness Type: Right Bin Jumper
OEM Connector: 13580179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

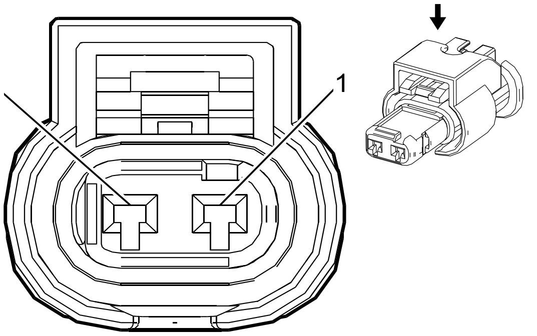
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E87R Cargo Lamp - Right Cargo Stowage Box (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	9200	Low Refrence	I	—
2	0.75	WH/BN	6815	Inadvertent Power Control	I	—

F101 Passenger Instrument Panel Air Bag (Heavy Duty)



2474752

Connector Part Information

Harness Type: Instrument Panel Extension
OEM Connector: 13863037
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

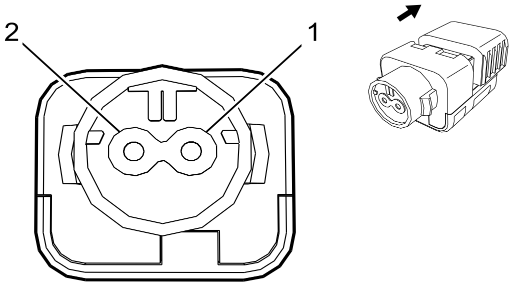
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F101 Passenger Instrument Panel Air Bag (Heavy Duty)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/OG	3025	Passenger IP Module Stage 1 High Control	I	—
2	0.35	OG/WH	3024	Passenger IP Module Stage 1 Low Control	I	—

F105L Roof Rail Air Bag - Left (AY0)



2282927

Connector Part Information

Harness Type: Roof Rail Air Bag Jumper
OEM Connector: 19153419
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series (BK with YE Cover)

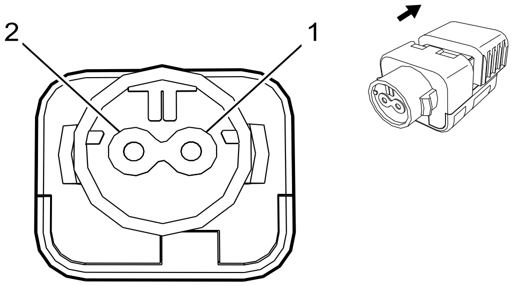
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F105L Roof Rail Air Bag - Left (AY0)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	5019	Left Front Head Curtain Module High Control	I	—
2	0.35	WH	5020	Left Front Head Curtain Module Low Control	I	—

F105R Roof Rail Air Bag - Right (AY0)



2282927

Connector Part Information

Harness Type: Roof Rail Air Bag Jumper
OEM Connector: 19153419
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series (BK with YE Cover)

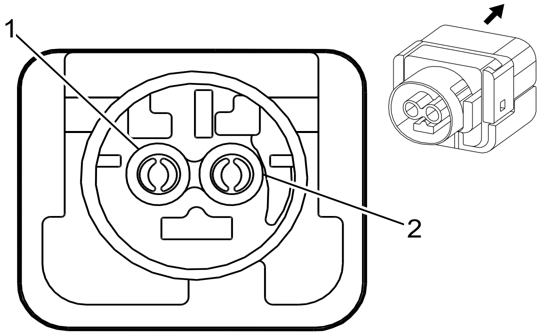
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F105R Roof Rail Air Bag - Right (AY0)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	5021	Right Front Head Curtain Module High Control	I	—
2	0.35	WH	5022	Right Front Head Curtain Module Low Control	I	—

F106D Seat Side Air Bag - Driver (AY0)



2231620

Connector Part Information

Harness Type: Driver Seat Back Jumper
OEM Connector: PPI0001142
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series (BK with YE Cover)

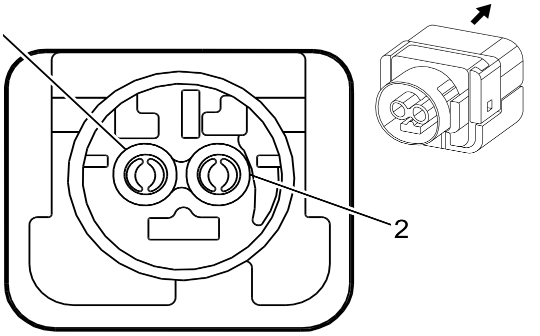
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F106D Seat Side Air Bag - Driver (AY0)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BU	3068	Driver Side Impact Module High Control	I	—
2	0.5	GN/OG	3069	Driver Side Impact Module Low Control	I	—

F106P Seat Side Air Bag - Passenger (AY0)



2231620

Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: PPI0001142
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series (BK with YE Cover)

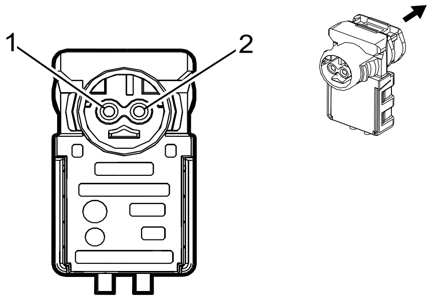
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F106P Seat Side Air Bag - Passenger (AY0)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GY	3066	Passenger Side Impact Module High Control	I	—
2	0.5	BN/OG	3067	Passenger Side Impact Module Low Control	I	—

F107 Steering Wheel Air Bag (Heavy Duty)



3282464

Connector Part Information

Harness Type: Steering Wheel Air Bag
OEM Connector: 13580455
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F AK-2 Series (BK)

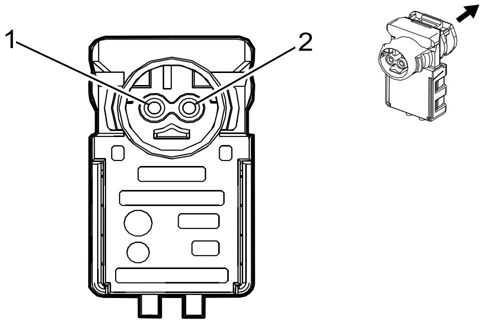
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F107 Steering Wheel Air Bag (Heavy Duty)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN	3021	Steering Wheel Module Stage 1 High Control	I	—
2	0.35	BN	3020	Steering Wheel Module Stage 1 Low Control	I	—

F107 Steering Wheel Air Bag X1 (Light Duty)



3214032

Connector Part Information

Harness Type: Steering Wheel Air Bag
OEM Connector: 13580454
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F AK-2 Series (L-GN with YE Cover)

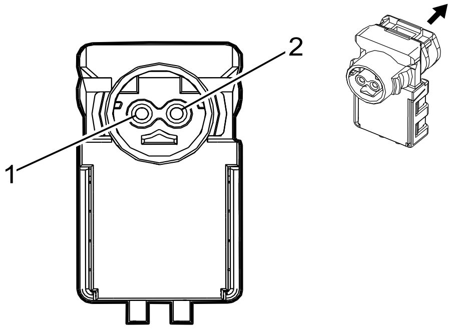
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F107 Steering Wheel Air Bag X1 (Light Duty)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN	3021	Steering Wheel Module Stage 1 High Control	I	—
2	0.35	BN	3020	Steering Wheel Module Stage 1 Low Control	I	—

F107 Steering Wheel Air Bag X2 (Light Duty)



3214033

Connector Part Information

Harness Type: Steering Wheel Air Bag
OEM Connector: 13580453
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F AK-2 Series (YE with YE Cover)

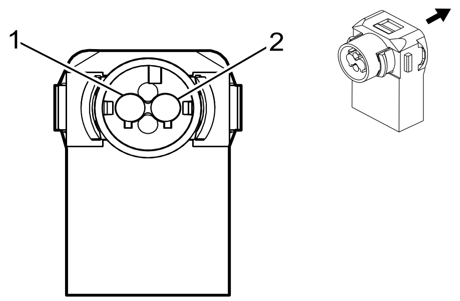
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F107 Steering Wheel Air Bag X2 (Light Duty)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	3023	Steering Wheel Module Stage 2 High Control	I	—
2	0.35	PK	3022	Steering Wheel Module Stage 2 Low Control	I	—

F112D Seat Belt Retractor Pretensioner - Driver (EXTENDED CAB/CREW CAB)



4241364

Connector Part Information

Harness Type: Body
OEM Connector: 33345778
Service Connector: 19355490
Description: 2-Way F ABX-5 Series (PU with YE Cover)

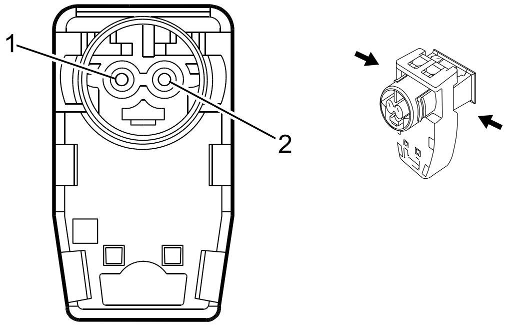
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F112D Seat Belt Retractor Pretensioner - Driver (EXTENDED CAB/CREW CAB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	GY	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—

F112D Seat Belt Retractor Pretensioner - Driver (REGULAR CAB)



2368877

Connector Part Information

Harness Type: Body
OEM Connector: 33512202
Service Connector: 19355492
Description: 2-Way F 0.64 Series, Sealed (BK with YE Cover)

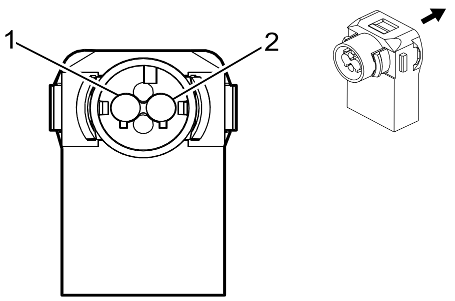
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F112D Seat Belt Retractor Pretensioner - Driver (REGULAR CAB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	GY	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—

F112P Seat Belt Retractor Pretensioner - Passenger (CREW CAB/EXTENDED CAB)



4241364

Connector Part Information

Harness Type: Body
OEM Connector: 33345778
Service Connector: 19355490
Description: 2-Way F ABX-5 Series (PU with YE Cover)

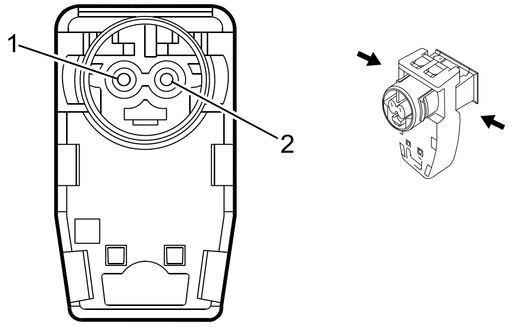
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F112P Seat Belt Retractor Pretensioner - Passenger (CREW CAB/EXTENDED CAB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	WH	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—

F112P Seat Belt Retractor Pretensioner - Passenger (REGULAR CAB)



2368877

Connector Part Information

Harness Type: Body
OEM Connector: 33512202
Service Connector: 19355492
Description: 2-Way F 0.64 Series, Sealed (BK with YE Cover)

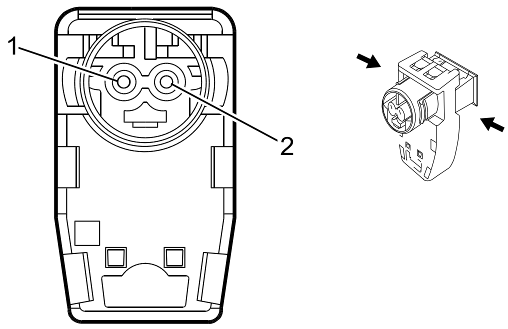
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F112P Seat Belt Retractor Pretensioner - Passenger (REGULAR CAB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	WH	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—

F113D Seat Belt Anchor Pretensioner - Driver



2368877

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: PPI0001721
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (BK with YE Cover)

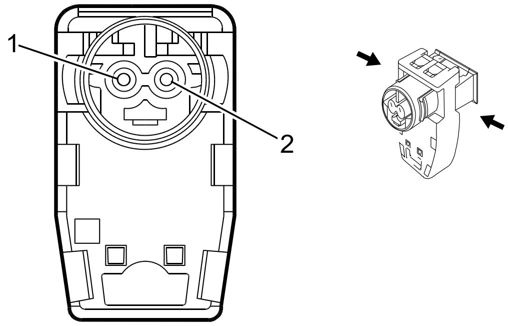
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F113D Seat Belt Anchor Pretensioner - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—

F113P Seat Belt Anchor Pretensioner - Passenger



2368877

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: PPI0001721
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (BK with YE Cover)

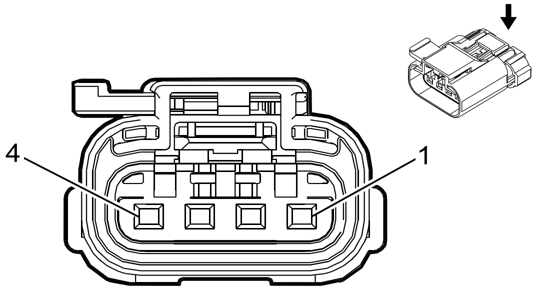
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F113P Seat Belt Anchor Pretensioner - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—

G10L Cooling Fan Motor - Left



Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33234266
Service Connector: 19354081
Description: 4-Way F 2.8 APEX Series, Sealed (BK)

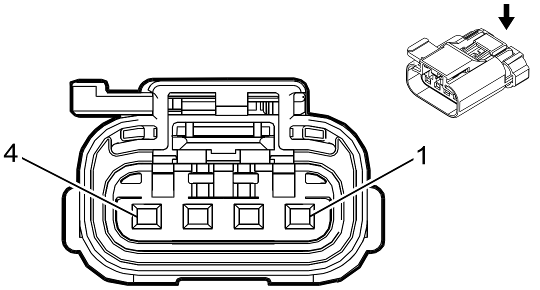
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G10L Cooling Fan Motor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	BK	150	Ground	II	—
2	4	RD/WH	342	Battery Positive Voltage	II	—
3	—	—	—	Not Occupied	—	—
4	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	—

G10R Cooling Fan Motor - Right



4446642

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33234266
Service Connector: 19354081
Description: 4-Way F 2.8 APEX Series, Sealed (BK)

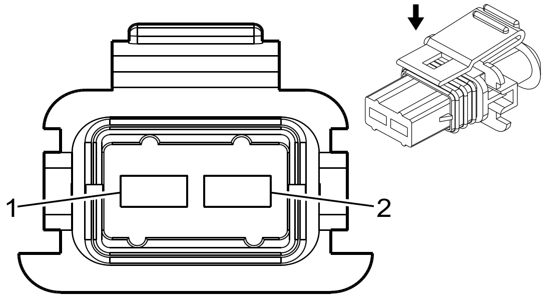
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G10R Cooling Fan Motor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	BK	250	Ground	II	—
2	4	RD/GY	642	Battery Positive Voltage	II	—
3	—	—	—	Not Occupied	—	—
4	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	—

G13 Generator X1 (L5P)



1522871

Connector Part Information

Harness Type: Engine
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

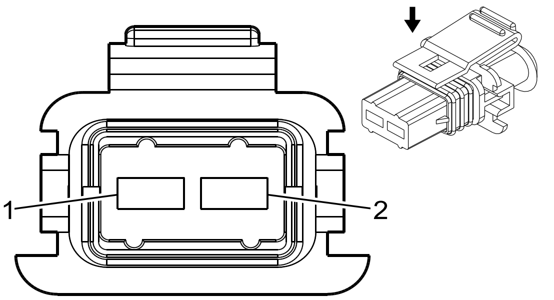
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X1 (L83/L86)



1522871

Connector Part Information

Harness Type: Engine
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

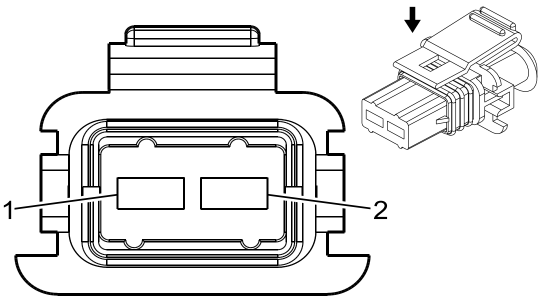
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (L83/L86)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X1 (L96+VYU)



1522871

Connector Part Information

Harness Type: Accessory
OEM Connector: 12186308
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

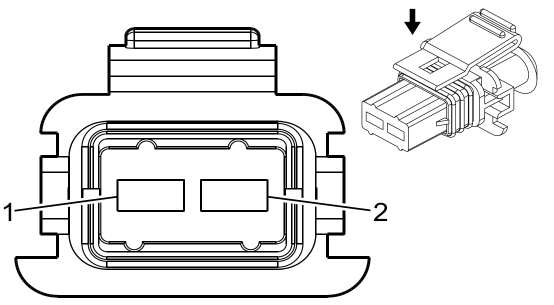
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (L96+VYU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	9025	—	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X1 (L96-VYU)



1522871

Connector Part Information

Harness Type: Engine
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

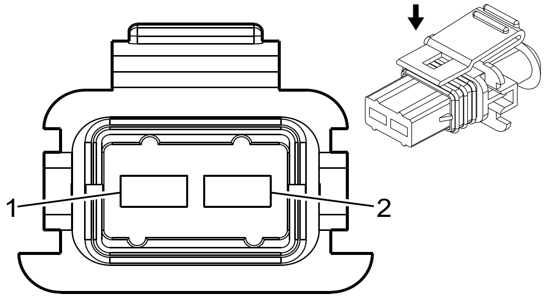
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (L96-VYU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X1 (LV3)



1522871

Connector Part Information

Harness Type: Engine
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

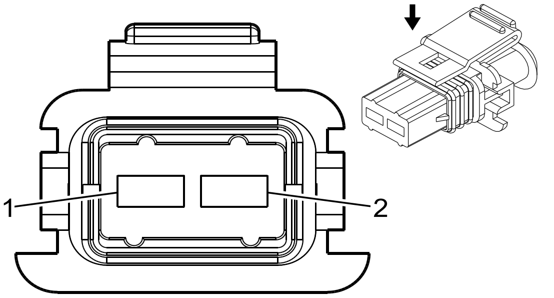
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13E Generator - Auxiliary X1 (L5P)



1522871

Connector Part Information

Harness Type: Engine
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

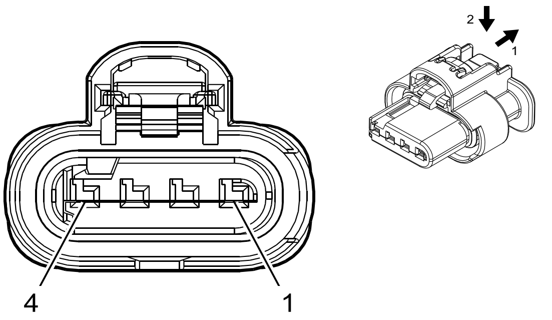
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13E Generator - Auxiliary X1 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	25	Charge Indicator Control	I	—
2	—	—	—	Not Occupied	—	—

G14 Hybrid/EV Battery Pack Cooling Fan



4210809

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33150389
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCON-CB Series, Sealed (BK)

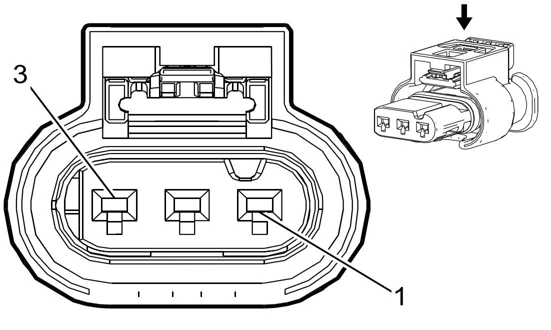
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G14 Hybrid/EV Battery Pack Cooling Fan

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BU	6276	Fan Speed Sensor Low Reference	I	—
2	0.35	YE/GN	5598	Fan Speed Signal 1	I	—
3	0.35	BU/VT	5599	Fan Speed Signal 2	I	—
4	0.5	BN/WH	6277	Fan Speed Sensor Control	I	—

G17 Heater Coolant Pump (L8B)



2394093

Connector Part Information

Harness Type: Engine
OEM Connector: 13663390
Service Connector: 13574937
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

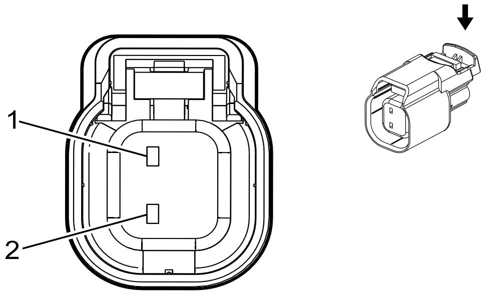
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-12 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G17 Heater Coolant Pump (L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	550	Ground	I	—
2	0.5	YE/BU	5126	After Boil Heater Pump Control	I	—
3	—	—	—	Not Occupied	—	—

G18 High Pressure Fuel Pump



2792100

Connector Part Information

Harness Type: Engine
OEM Connector: 13581410
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

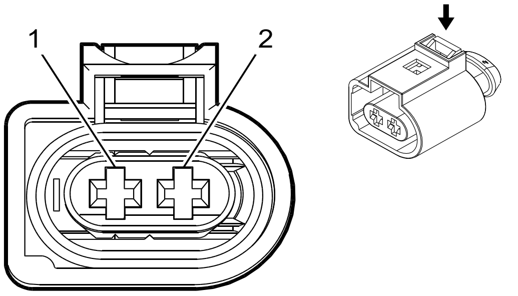
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G18 High Pressure Fuel Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK/YE	2834	Fuel Rail Pressure Solenoid Low Reference	I	L5P
2	0.75	BU/WH	2530	Fuel Rail Pressure Solenoid Control	I	L5P

G24 Windshield Washer Pump



2474738

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 10863916
Service Connector: 13576532
Description: 2-Way F 2.8 MDK5 Series, Sealed (BK)

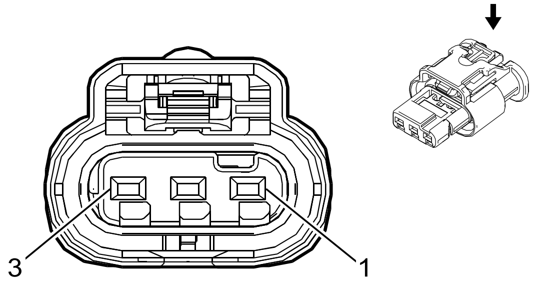
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY/VT	228	Windshield Washer Pump Control	I	—
2	0.75	BK	150	Ground	I	—

G43 Starter/Generator Coolant Pump



2889711

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13868589
Service Connector: 19367741
Description: 3-Way F 1.2 MCP Series, Sealed (BN)

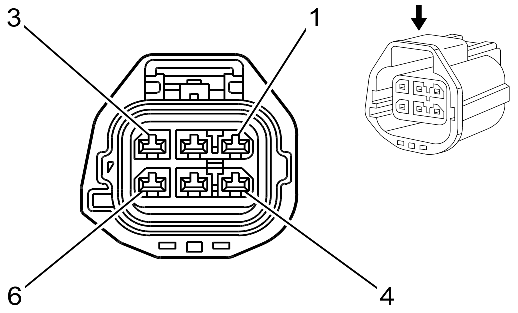
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G43 Starter/Generator Coolant Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	250	Ground	I	—
2	0.5	GY/BU	3769	MGU Coolant Pump Control	I	—
3	0.5	VT/BU	3790	Electric Coolant Motor Feedback Signal	I	—

K4 Assist Step Control Module X1



1420587

Connector Part Information

Harness Type: Chassis
OEM Connector: 33224291
Service Connector: 19355394
Description: 6-Way F 2.8 Series, Sealed (D-GY)

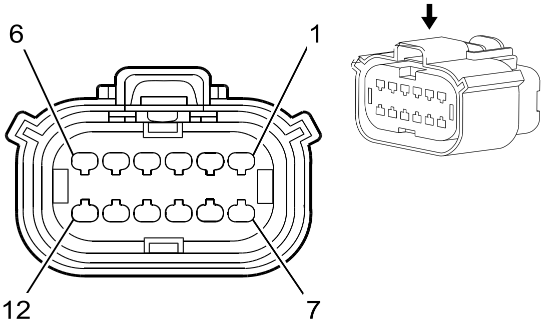
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K4 Assist Step Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	GN	7469	Articulating Running Boards Motor Right Control Retract	I	—
2	2.5	BK	2150	Ground	II	—
3	2	WH/BN	7471	Articulating Running Boards Motor Left Control Extend	I	—
4	2	BU	7470	Articulating Running Boards Motor Right Control Extend	I	—
5	2.5	RD/YE	1142	Battery Positive Voltage	I	—
6	2	GY	7472	Articulating Running Boards Motor Left Control Retract	I	—

K4 Assist Step Control Module X2



1825165

Connector Part Information

Harness Type: Chassis
OEM Connector: 13653762
Service Connector: 13503528
Description: 12-Way F 1.5 Series, Sealed (BK)

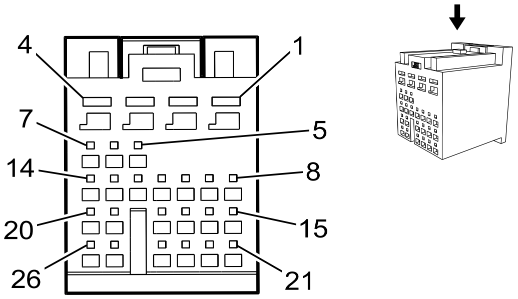
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K4 Assist Step Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/RD	7468	Running Boards Motor Hall Sensor Left 5V Reference	I	—
2	0.5	GN/RD	7464	Running Boards Motor Hall Sensor Right 5V Reference	I	—
3	0.5	YE	7467	Running Boards Motor Hall Sensor Left Signal	I	—
4	0.5	VT	7465	Running Boards Motor Hall Sensor Right Signal	I	—
5	0.5	YE/BN	7466	Running Boards Motor Hall Sensor Left Low Reference	I	—
6	0.5	YE/BK	7463	Running Boards Motor Hall Sensor Right Low Reference	I	—
7	0.5	BN/WH	9002	—	I	—
8	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	BN/WH	7462	Running Boards Disable Signal	I	—
11	0.5	BN/WH	9001	—	I	—
12	0.5	BN/WH	9000	—	I	—

K9 Body Control Module X1



2282907

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13943345
Service Connector: 13582966
Description: 26-Way F 0.64, 2.8 Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575871	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	C	A
II	13575871	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A
III	13582297	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available

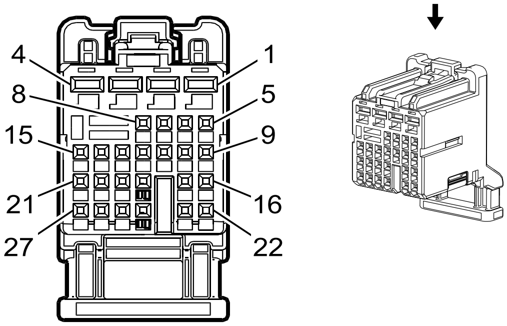
K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1850	Ground	II	—
2	0.75	RD/BU	2540	Battery Positive Voltage	II	—
3	1	RD/GY	2140	Battery Positive Voltage	I	—
4	0.5	RD/BN	2240	Battery Positive Voltage	II	—
5	0.5	WH	6816	Indicator Dimming Control	III	—
6	—	—	—	Not Occupied	—	—
7	0.35	BK/YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	III	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	BU/VT	1134	Park Brake Switch Signal	III	—
11	0.35	GN/BN	306	Headlamp Switch Headlamps Off Signal Control	III	—
12	—	—	—	Not Occupied	—	—
13	0.35	BU/RD	1688	5V Reference	III	—
14	0.35	GY/GN	328	Interior Lamp Defeat Switch Signal	III	—
15	0.35	BU/GY	192	Front Fog Lamp Switch Signal	III	—
16	0.35	WH/VT	103	Headlamp Switch On Signal	III	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.35	BK/GN	552	Sensor Low Reference	III	—

K9 Body Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	—	—	—	Not Occupied	—	—
21	0.35	GY	728	Security Indicator Control	III	—
22	0.35	GN/GY	13	Headlamp Switch Park Lamp Signal	III	—
23	0.5	VT/GN	7558	LED Ambient Lighting Control 2	III	—
24	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
25	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
26	0.35	BU/WH	3275	Remote Function Actuator Receive Signal	III	—

K9 Body Control Module X2



2180237

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13943361
Service Connector: 13576637
Description: 27-Way F 0.64, 2.8 Series (L-BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575871	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A
II	13582297	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available

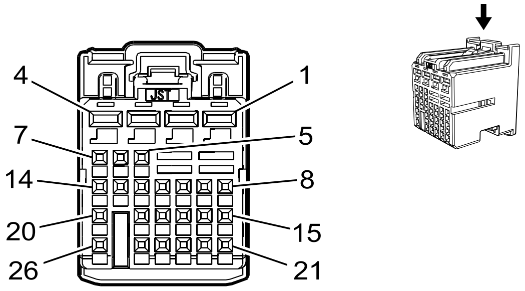
K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	2740	Battery Positive Voltage	I	—
2	0.75	BK	1850	Ground	I	—
3	0.5	RD/BN	2940	Battery Positive Voltage	I	—
4	0.75	RD/VT	4040	Battery Positive Voltage	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY	5697	Child Lockout Indicator Control	II	—
7	0.35	WH/GN	526	Stop Lamp Switch Signal	II	—
8	0.5	YE	6817	LED Backlight Dimming Control	II	—
9	0.35	YE/GY	44	Instrument Panel Lamp Dimmer Switch Signal	II	—
10	0.35	WH/BU	278	Ambient Light Sensor Signal	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	GY/RD	598	5V Reference	II	—
14	0.35	BU/VT	1788	Traction Control Switch Signal 1	II	—
15	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	II	—
16	0.35	GY	3273	Remote Function Actuator Low Reference	II	—
17	—	—	—	Not Occupied	—	—
18	0.5	GY	158	Cargo Lamp Switch Signal	II	—
19	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	II	—
20	0.5	WH/BU	3691	Trailer Brake Apply Signal	II	—

K9 Body Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.5	GN/GY	6135	Local Interconnect Network Serial Data Bus 4	II	—
22 - 24	—	—	—	Not Occupied	—	—
25	0.35	GY/WH	3272	Remote Function Actuator Control	II	—
26	0.35	GN/WH	111	Hazard Switch Signal	II	—
27	0.35	YE/GN	3274	Remote Function Actuator Transmit Signal	II	—

K9 Body Control Module X4



3240145

Connector Part Information

Harness Type: Body
OEM Connector: 13962485
Service Connector: 13587579
Description: 26-Way F 0.64, 2.8 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575871	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A
II	13582297	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available
III	13582298	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available

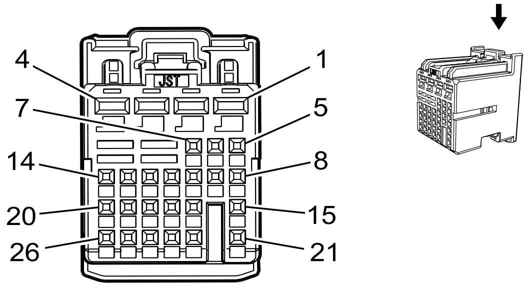
K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE	712	Left Headlamp Low Beam Control	I	—
2	0.75	YE	312	Right Headlamp Low Beam Control	I	—
3	0.75	GN/VT	1315	Right Front Turn Signal Lamp Control	I	—
4	0.5	BN/GN	19	Right Rear Stop/Turn Lamp Control	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.75	GY/BU	7538	Left Front DRL Control	III	—
8 - 10	—	—	—	Not Occupied	—	—
11	0.5	VT/WH	5065	Stop Lamp Relay Coil Control	II	—
12	0.35	GY/VT	755	RAP Relay Coil Control	II	—
13	0.5	GN/YE	6846	Rear License Lamp Control	II	—
14	0.35	BN/GY	2268	Windshield Washer Relay Control	II	—
15	0.35	GN/VT	5199	Run/Crank Relay Coil Control	II	—
16	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	II	—
17	0.5	BN/GN	196	Windshield Wiper Motor Park Switch Signal	II	—
18	0.35	WH/YE	5075	Current Sensor Signal	II	—
19	0.35	BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	II	—
20	0.75	RD/YE	2340	Battery Positive Voltage	III	—

K9 Body Control Module X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.35	BU/VT	5076	Current Sensor Control	II	—
22	0.35	VT/YE	5985	Accessory Wakeup Serial Data	II	—
23	0.5	WH/BU	5986	Serial Data Communication Enable	II	—
24	0.5	BN/GN	109	Hood Ajar Switch Signal	II	—
25	0.5	GN/YE	2081	Exhaust Brake Switch Control	II	—
26	0.75	BK/WH	451	Signal Ground	III	—

K9 Body Control Module X5



3240146

Connector Part Information

Harness Type: Body
OEM Connector: 13962299
Service Connector: 13587577
Description: 26-Way F 0.64, 2.8 Series (BN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575871	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A
II	13582297	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available
III	13582298	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available

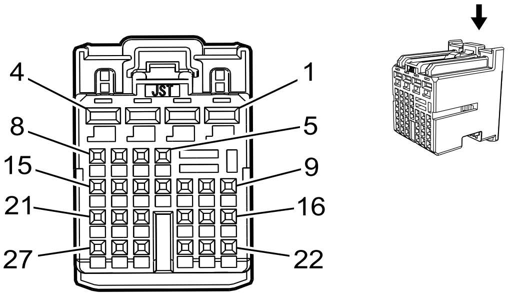
K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	18	Left Rear Stop/Turn Lamp Control	I	—
2	0.75	BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
3	0.75	RD/GN	5140	Battery Positive Voltage	I	—
4	0.75	RD/WH	3440	Battery Positive Voltage	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	BK/VT	5077	Current Sensor Low Reference	II	—
7	0.75	BU/BN	7539	Right Front DRL Control	III	—
8	0.35	BU/WH	5186	Left Trailer Turn Signal Lamp Control	II	—
9	—	—	—	Not Occupied	—	—
10	0.5	BN	1317	Fog Lamp Relay Control	II	—
11	—	—	—	Not Occupied	—	—
12	0.35	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
13	—	—	—	Not Occupied	—	—
14	0.35	VT/BN	300	Run Ignition 3 Voltage	II	—
15	0.35	GN/WH	3438	Exhaust Brake Switch Signal	II	—
16	0.35	VT/YE	3267	Child Security Lock Relay Control	II	—
17	0.35	YE/GY	5187	Right Trailer Turn Signal Lamp Control	II	—

K9 Body Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	0.35	BN/VT	1969	Headlamp High Beam Relay Control	II	—
19	0.35	BN/WH	28	Horn Relay Control	II	—
20	0.5	GN/GY	963	—	II	—
21	0.5	WH/BU	964	—	II	—
22	0.35	BU	45	Park Lamp Relay Control	II	—
23	0.35	YE	6812	Out of Park Signal	II	—
24	0.35	WH/VT	860	Front Windshield Wiper Switch High Signal	II	—
25	—	—	—	Not Occupied	—	—
26	0.35	BU/BN	38	Backup Lamp Relay Control	II	—

K9 Body Control Module X6



3240147

Connector Part Information

Harness Type: Body
OEM Connector: 13962300
Service Connector: 13587576
Description: 27-Way F 0.64, 2.8 Series (L-PU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575871	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	C	A
II	13575871	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A
III	13582297	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available

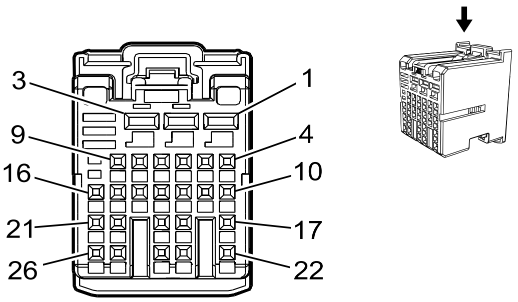
K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU/WH	195	Door Lock Control	I	—
2	1.5	GY/GN	3271	Door Lock Control 2	I	—
3	1.5	BK	1850	Ground	I	—
4	0.75 1.5	BN/YE BN/YE	294 294	Door Lock Actuator Unlock Control Door Lock Actuator Unlock Control	II I	03 06/43/53
5	—	—	—	Not Occupied	—	—
6	0.35	BU/VT	1124	Door Lock Key Switch Unlock Signal	III	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.5	GN/BU	6133	Local Interconnect Network Serial Data Bus 2	III	—
10	0.5	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	III	—
11	—	—	—	Not Occupied	—	—
12	0.5	YE/BK	5356	Left Tail Lamp Outage Detection Signal	III	—
13	—	—	—	Not Occupied	—	—
14	0.5	YE	9003	—	III	—
15	0.5	GY/GN	6190	Lift Glass/Rear Compartment Lid Exterior Release Signal	III	—
16 - 20	—	—	—	Not Occupied	—	—
21	0.35	WH/VT	3270	Driver Door Lock Motor Status Signal	III	—

K9 Body Control Module X6 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	0.5	VT/YE	5357	Right Tail Lamp Outage Detection Signal	III	—
23	—	—	—	Not Occupied	—	—
24	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
25	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
26	0.5	BN/WH	1429	Standing Lamp Relay Control	III	—
27	—	—	—	Not Occupied	—	—

K9 Body Control Module X7



3240144

Connector Part Information

Harness Type: Body
OEM Connector: 13962301
Service Connector: 13587578
Description: 26-Way F 0.64, 2.8 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575871	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A
II	13582297	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available

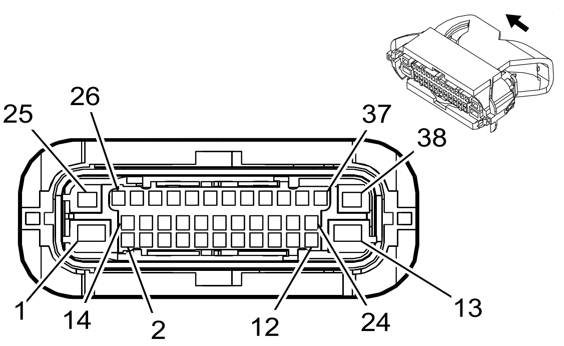
K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5 0.75	WH/BN WH/BN	6815 6815	Inadvertent Power Control Inadvertent Power Control	I I	(-E29-ZYD)/E29 ZYD-E29
4 - 5	—	—	—	Not Occupied	—	—
6	0.35	YE/WH	816	Brake Transmission Shift Interlock Solenoid Control	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	GY/GN	5996	Driver Outside Rear View Mirror Puddle Lamp Control	II	—
9	0.5	YE	6817	LED Backlight Dimming Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.35	BN/WH	3269	Child Security Lock Motor Status Signal Left Rear	II	—
13	—	—	—	Not Occupied	—	—
14	0.35	GY	746	Right Front Door Ajar Switch Signal	II	—
15	0.35	YE/BN	3265	Child Security Lock Switch Signal	II	—
16	0.5	WH/BU	3691	Trailer Brake Apply Signal	II	—
17	—	—	—	Not Occupied	—	—
18	0.35	GY/BK	3268	Child Security Lock Motor Status Signal Right Rear	II	—

K9 Body Control Module X7 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	0.35	GY	156	Courtesy Lamp Switch Signal	II	—
20	—	—	—	Not Occupied	—	—
21	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	II	—
22	0.35	WH/YE	7557	LED Ambient Lighting Control 1	II	—
23	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
24	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	II	—
25	0.35 0.35	GY GN	745 4512	Left Front Door Ajar Switch Signal Wireless Charging System Charge Indicator Control	II II	03/06-A31 K4C
26	—	—	—	Not Occupied	—	—

K17 Electronic Brake Control Module



3638282

Connector Part Information

Harness Type: Chassis
OEM Connector: 33102987
Service Connector: 19329396
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576374	J-35616-35 (VT)	J-38125-557	1-968857-3	Lear 7	C	1
II	19301757	J-35616-40 (BU)	J-38125-556	1241408-1	Lear 28	B	G
III	19301776	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19329757	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

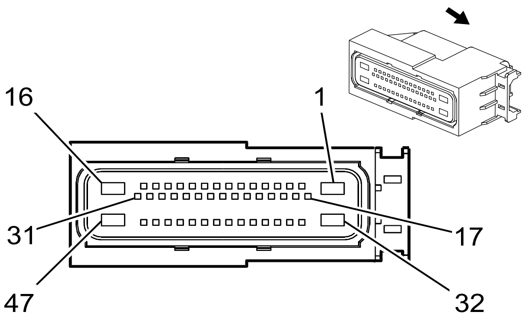
K17 Electronic Brake Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD/YE	442	Battery Positive Voltage	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	GY/YE	7128	Wheel Speed Sensor Control Right Rear	III	—
4	0.5	VT	882	Wheel Speed Sensor Signal Right Rear	III	—
5	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	III	—
6	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	III	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
9	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
10	0.5	GY/BN	7065	Wheel Speed Sensor Control Right Front	III	—
11	0.5	YE	872	Wheel Speed Sensor Signal Right Front	III	—
12	—	—	—	Not Occupied	—	—
13	5	BK	2150	Ground	II	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.5	GN/BN	2087	Combined Vehicle Inertial Sensor Supply Voltage	IV	—

K17 Electronic Brake Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	0.5	GN/GY	333	Brake Fluid Level Sensor Signal	III	—
19	0.5	BN	6305	Brake Vacuum Switch Signal	III	—
20	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
21	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/YE	6032	Brake Vacuum Sensor Low Reference	III	—
25	2.5	RD/VT	1640	Battery Positive Voltage	I	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH/BU	5986	Serial Data Communication Enable	III	—
29	0.5	GY/BK	7127	Wheel Speed Sensor Control Left Rear	III	—
30	0.5	BU	884	Wheel Speed Sensor Signal Left Rear	III	—
31	—	—	—	Not Occupied	—	—
32	0.5	YE/RD	6031	Brake Vacuum Sensor 5V Reference	III	—
33	0.5	GN/WH	817	Vehicle Speed Signal	III	—
34	0.5	YE/VT	6030	Brake Vacuum Sensor Signal	III	—
35	0.5	GY/WH	7064	Wheel Speed Sensor Control Left Front	III	—
36	0.5	GY	830	Wheel Speed Sensor Signal Left Front	III	—
37	—	—	—	Not Occupied	—	—
38	2.5	BK	2150	Ground	I	—

K19 Suspension Control Module



1858233

Connector Part Information

Harness Type: Chassis
OEM Connector: 15491306
Service Connector: 19168025
Description: 47-Way F 0.64, 6.3 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579754	J-35616-42 (RD)	J-38125-553	Not Available	Not Available	Not Available	Not Available
II	13579754	J-35616-42 (RD)	J-38125-553	15476168	Delphi 5	F	3
III	13579755	J-35616-42 (RD)	J-38125-553	15476168	Delphi 5	F	3
IV	13579766	J-35616-64B (LT BU)	J-38125-215A	SAITS-A03T-M064	Yazaki 14	9	9
V	13579774	J-35616-64B (LT BU)	J-38125-215A	SAITS-A03T-M064	Yazaki 14	9	9

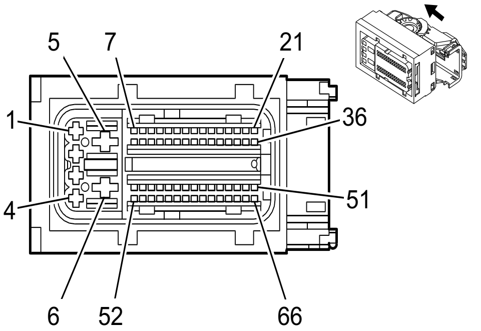
K19 Suspension Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	BK/GN	1209	Left Rear Strut Position Sensor Low Reference	V	—
3	0.5	YE/WH	1213	Right Front Strut Position Sensor Signal	V	—
4	—	—	—	Not Occupied	—	—
5	0.5	BK/YE	1215	Right Rear Strut Position Sensor Low Reference	V	—
6	0.5	BN/WH	1207	Left Front Strut Position Sensor Signal	V	—
7 - 11	—	—	—	Not Occupied	—	—
12	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	V	—
13	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	V	—
14	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	V	—
15	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	V	—
16	0.75	WH/BU	5986	Serial Data Communication Enable	I	—
17	0.5	GN/WH	1210	Left Rear Strut Position Sensor Signal	V	—

K19 Suspension Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	0.5	BK/GY	1212	Right Front Strut Position Sensor Low Reference	V	—
19	—	—	—	Not Occupied	—	—
20	0.5	GN/GY	1216	Right Rear Strut Position Sensor Signal	V	—
21	0.5	BK/BU	1206	Left Front Strut Position Sensor Low Reference	V	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	V	—
25	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	V	—
26	—	—	—	Not Occupied	—	—
27	0.75	BN	1009	Right Front Strut Motor Decrease Damping Control	IV	—
28	0.75	WH/BK	1006	Right Front Strut Motor Increase Damping Control	IV	—
29	—	—	—	Not Occupied	—	—
30	0.75	WH/GN	1005	Left Front Strut Motor Decrease Damping Control	IV	—
31	0.75	WH/GY	1448	Left Front Strut Motor Increase Damping Control	IV	—
32	3	RD/GN	2440	Battery Positive Voltage	II	—
33	0.5	YE/RD	1208	Left Rear Strut Position Sensor 5V Reference	V	—
34	0.5	BN/RD	1211	Right Front Strut Position Sensor 5V Reference	V	—
35	0.5	GN/RD	1214	Right Rear Strut Position Sensor 5V Reference	V	—
36	0.5	BU/RD	1205	Left Front Strut Position Sensor 5V Reference	V	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	V	—
40	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	V	—
41	—	—	—	Not Occupied	—	—
42	0.75	WH/BK	1013	Left Rear Strut Motor Decrease Damping Control	IV	—
43	0.75	BN/VT	1010	Left Rear Strut Motor Increase Damping Control	IV	—
44	—	—	—	Not Occupied	—	—
45	0.75	VT	1017	Right Rear Strut Motor Decrease Damping Control	IV	—
46	0.75	YE	1014	Right Rear Strut Motor Increase Damping Control	IV	—
47	4	BK	1750	Ground	III	—

K20 Engine Control Module X1 (L5P)



2498868

Connector Part Information

Harness Type: Engine
OEM Connector: 33261333
Service Connector: 19181736
Description: 66-Way F 0.64, 2.8, 6.3 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579752	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13580821	J-35616-4A (PU)	J-38125-36	4-964286-1	Lear 16	E	1
III	13584448	J-35616-64B (LT BU)	J-38125-12A	1719532-5	Lear 7	J	J
IV	13584528	J-35616-42 (RD)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	13584529	J-35616-42 (RD)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

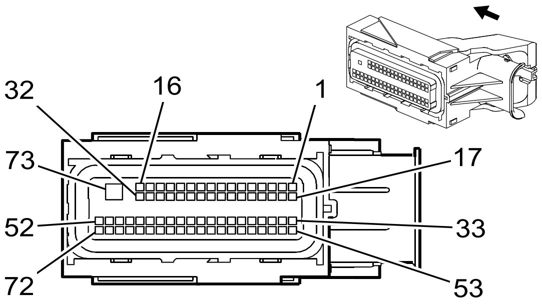
K20 Engine Control Module X1 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
2	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	RD/BN	440	Battery Positive Voltage	I	—
5	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	IV	—
6	4	BK/WH	451	Signal Ground	V	—
7	0.5	VT/YE	5985	Accessory Wakeup Serial Data	III	—
8	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	III	—
9	0.5	GY/BK	1694	Four Wheel Drive Low Signal	III	—
10	0.5	GN/WH	492	Mass Air Flow Sensor Signal	III	—
11	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	III	—
12	—	—	—	Not Occupied	—	—
13	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	III	—
14	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	III	—

K20 Engine Control Module X1 (L5P) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
15	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	III	—
16	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	III	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.5	YE	2928	Fuel Metering Valve High Control	III	—
22	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	III	—
23	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	III	—
24	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	III	—
25	0.5	BN/GY	4008	Humidity Sensor Signal	III	—
26	0.5	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	III	—
27	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	III	—
28	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	III	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	BN/WH	419	Check Engine Indicator Control	III	—
34	0.5	GN/BN	507	Wait To Start Indicator Control	III	—
35	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	III	—
36	0.5	BN/BK	2929	Fuel Metering Valve Low Control	III	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	III	—
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	III	—
44	0.5	WH	5359	Brake Apply Sensor Control	III	—
45	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	III	—
46	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	III	—
47	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	III	—
48	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	III	—
49	—	—	—	Not Occupied	—	—
50	0.5	WH/BK	2366	Cooling Fan Control Relay Speed Signal	III	—
51	0.5	YE	5991	Powertrain Relay Coil Control	III	—
52 - 53	—	—	—	Not Occupied	—	—
54	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	III	—
55	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
56 - 58	—	—	—	Not Occupied	—	—
59	0.5	BU/YE	5361	Brake Apply Sensor Signal	III	—
60	0.5	BK/VT	2760	Intake Air Temperature Sensor Low Reference	III	—
61 - 63	—	—	—	Not Occupied	—	—
64	0.5	YE/BU	1465	Secondary Fuel Pump Relay Control	III	—
65	0.5	YE/BK	625	Starter Enable Relay Control	III	—
66	0.5	GN/GY	465	Fuel Pump Primary Relay Control	III	—

K20 Engine Control Module X1 (L83/L86)



2479462

Connector Part Information

Harness Type: Engine
OEM Connector: 13820453
Service Connector: 19260919
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

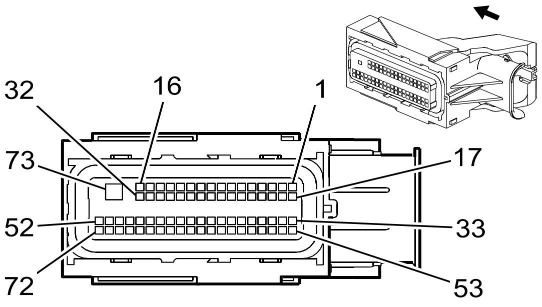
K20 Engine Control Module X1 (L83/L86)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
5	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
6	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	I	—
7	0.5	YE	5530	Hood Open Switch Signal	I	—
8	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	—
9	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
10	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	—
14	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
15	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
16 - 20	—	—	—	Not Occupied	—	—
21	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	—
22	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
23	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L83/L86) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
25	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
26	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
27 - 29	—	—	—	Not Occupied	—	—
30	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	I	—
31	—	—	—	Not Occupied	—	—
32	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	—
33	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
34	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
35	—	—	—	Not Occupied	—	—
36	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
37	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
38	0.5	WH	1579	Fuel Temperature/Composition Signal	I	—
39	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
41	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	GY	5660	Fuel Pump Controller Data Out Signal	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	BN/WH	419	Check Engine Indicator Control	I	—
47	0.5	WH	5359	Brake Apply Sensor Control	I	—
48	0.5	BU/YE	5361	Brake Apply Sensor Signal	I	—
49 - 50	—	—	—	Not Occupied	—	—
51	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
52	0.5	RD/BN	440	Battery Positive Voltage	I	—
53	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
54	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	I	—
55 - 56	—	—	—	Not Occupied	—	—
57	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	I	—
58	—	—	—	Not Occupied	—	—
59	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	—
60	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	I	—
61	0.5	GY/BK	1694	Four Wheel Drive Low Signal	I	—
62	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
63	0.5	YE/BK	625	Starter Enable Relay Control	I	—
64 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—
67	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
68	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	I	—
69	—	—	—	Not Occupied	—	—
70	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
71	—	—	—	Not Occupied	—	—
72	0.5	YE	5991	Powertrain Relay Coil Control	I	—
73	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—

K20 Engine Control Module X1 (L8B)



2479462

Connector Part Information

Harness Type: Engine
OEM Connector: 13820453
Service Connector: 19260919
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

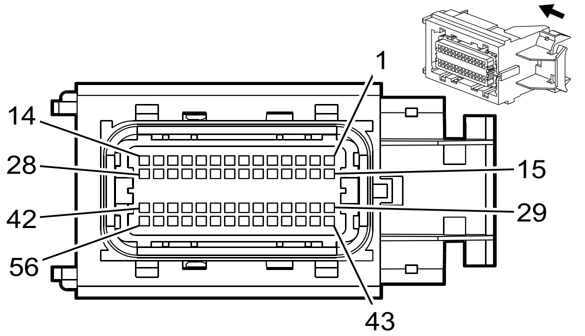
K20 Engine Control Module X1 (L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
5	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
6	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	—
9	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
10	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	—
14	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
15	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
16 - 20	—	—	—	Not Occupied	—	—
21	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	—
22	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
23	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L8B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
25	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
26	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
27 - 29	—	—	—	Not Occupied	—	—
30	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	I	—
31	—	—	—	Not Occupied	—	—
32	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	—
33	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
34	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
35	—	—	—	Not Occupied	—	—
36	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
37	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
38	0.5	WH	1579	Fuel Temperature/Composition Signal	I	—
39	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
41	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	GY	5660	Fuel Pump Controller Data Out Signal	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	BN/WH	419	Check Engine Indicator Control	I	—
47 - 50	—	—	—	Not Occupied	—	—
51	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
52	0.5	RD/BN	440	Battery Positive Voltage	I	—
53	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
54	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	I	—
55 - 56	—	—	—	Not Occupied	—	—
57	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	I	—
58	—	—	—	Not Occupied	—	—
59	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	—
60 - 61	—	—	—	Not Occupied	—	—
62	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
63	0.5	YE/BK	625	Starter Enable Relay Control	I	—
64 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—
67	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
68 - 69	—	—	—	Not Occupied	—	—
70	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
71	—	—	—	Not Occupied	—	—
72	0.5	YE	5991	Powertrain Relay Coil Control	I	—
73	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—

K20 Engine Control Module X1 (L96)



4068000

Connector Part Information

Harness Type: Engine
OEM Connector: 13820449
Service Connector: 19329930
Description: 56-Way F 0.64 I Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available

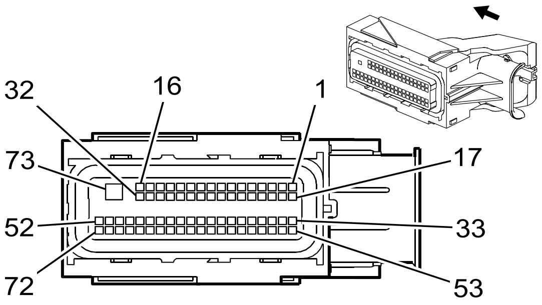
K20 Engine Control Module X1 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
3	0.5	GN/WH	492	Mass Air Flow Sensor Signal	I	—
4	0.5	GY/BK	1694	Four Wheel Drive Low Signal	I	—
5	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	GY/BU	7564	Humidity Sensor Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
11	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
12	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	I	—
13	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
14	0.5	YE/BU	1465	Secondary Fuel Pump Relay Control	I	—
15	—	—	—	Not Occupied	—	—
16	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
19	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
20	0.5	RD/BN	440	Battery Positive Voltage	I	—
21 - 23	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L96) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
25	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
26	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	—
27	0.5	YE/BK	625	Starter Enable Relay Control	I	—
28	0.5	GN/GY	465	Fuel Pump Primary Relay Control	I	—
29	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
30	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
31	0.5	BK/VT	2760	Intake Air Temperature Sensor Low Reference	I	—
32	—	—	—	Not Occupied	—	—
33	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	I	—
34	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
35 - 37	—	—	—	Not Occupied	—	—
38	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	I	—
39	—	—	—	Not Occupied	—	—
40	0.5	YE	5991	Powertrain Relay Coil Control	I	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
44	—	—	—	Not Occupied	—	—
45	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	I	—
46	—	—	—	Not Occupied	—	—
47	0.5	BN	25	Charge Indicator Control	I	—
48 - 51	—	—	—	Not Occupied	—	—
52	0.5	BN/WH	419	Check Engine Indicator Control	I	—
53	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	—
54 - 55	—	—	—	Not Occupied	—	—
56	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—

K20 Engine Control Module X1 (LV3)



2479462

Connector Part Information

Harness Type: Engine
OEM Connector: 13820453
Service Connector: 19260919
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

K20 Engine Control Module X1 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
5	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
6	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	I	—
7	0.5	YE	5530	Hood Open Switch Signal	I	—
8	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	—
9	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
10	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	—
14	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
15	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
16 - 20	—	—	—	Not Occupied	—	—
21	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	—
22	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
23	—	—	—	Not Occupied	—	—

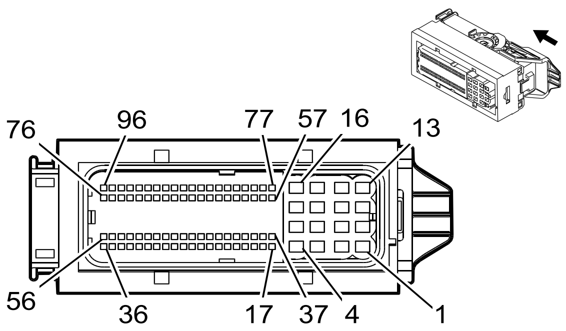
K20 Engine Control Module X1 (LV3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
25	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
26	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
27 - 29	—	—	—	Not Occupied	—	—
30	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	I	—
31	—	—	—	Not Occupied	—	—
32	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	—
33	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
34	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
35	—	—	—	Not Occupied	—	—
36	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
37	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
38	0.5	WH	1579	Fuel Temperature/Composition Signal	I	—
39	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
41	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	GY	5660	Fuel Pump Controller Data Out Signal	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	BN/WH	419	Check Engine Indicator Control	I	—
47	0.5 0.5	WH GY/RD	5359 6109	Brake Apply Sensor Control Clutch Apply Sensor 5V Reference	I I	L83/L86-L8B MXW
48	0.5 0.5	YE BU/YE	6111 5361	Clutch Apply Sensor Signal Brake Apply Sensor Signal	I I	MXW -MXW
49 - 50	—	—	—	Not Occupied	—	—
51	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
52	0.5	RD/BN	440	Battery Positive Voltage	I	—
53	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
54	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	I	—
55 - 56	—	—	—	Not Occupied	—	—
57	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	I	—
58	—	—	—	Not Occupied	—	—
59	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	—
60	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	I	—
61	0.5	GY/BK	1694	Four Wheel Drive Low Signal	I	—
62	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
63	0.5	YE/BK	625	Starter Enable Relay Control	I	—
64 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—
67	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
68	0.5 0.5	BK/BN BK/GY	5360 6110	Brake Apply Sensor Low Reference Clutch Apply Sensor Low Reference	I I	L83/L86-L8B/-MXV MXW
69	—	—	—	Not Occupied	—	—
70	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
71	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (LV3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
72	0.5	YE	5991	Powertrain Relay Coil Control	I	—
73	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—

K20 Engine Control Module X2 (L5P)



4115094

Connector Part Information

Harness Type: Engine
OEM Connector: 33237908
Service Connector: 19355773
Description: 96-Way F 0.64 MTS-B, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13584448	J-35616-64B (LT BU)	J-38125-12A	1719532-5	Lear 7	J	J
II	13584530	J-35616-4A (PU)	J-38125-36	4-964286-1	Lear 16	E	1

K20 Engine Control Module X2 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/GN	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	II	L5P
2	0.75	YE/GY	4807	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	II	L5P
3	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	II	L5P
4	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	II	L5P
5	0.75	VT/GY	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	II	L5P
6	0.75	WH/YE	4907	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	II	L5P
7	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	II	L5P
8	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	II	L5P
9	0.75	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	II	L5P
10	0.75	GY/WH	4908	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	II	L5P
11	0.75	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	II	L5P

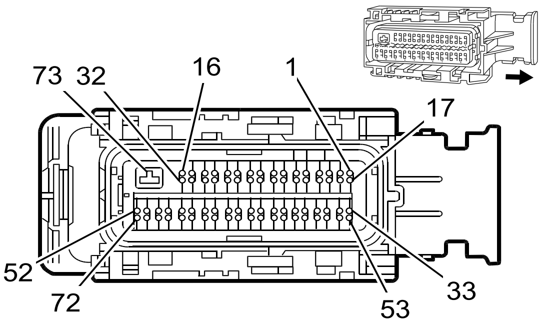
K20 Engine Control Module X2 (L5P) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
12	0.75	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	II	L5P
13	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	II	L5P
14	0.75	GY	4808	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	II	L5P
15	0.75	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	II	L5P
16	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	II	L5P
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	L5P
18	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	L5P
19	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	L5P
20	0.5	BU/RD	2702	Exhaust Gas Recirculation 5V Reference 2	I	L5P
21	0.5	BN/WH	5763	Exhaust Gas Recirculation Valve Sensor Signal	I	L5P
22	0.5	BK/BN	2753	Exhaust Gas Recirculation Sensor Low Reference	I	L5P
23	—	—	—	Not Occupied	—	—
24	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	L5P
25	—	—	—	Not Occupied	—	—
26	0.5	BN	7348	Induction Air Temperature Sensor 2 Signal	I	L5P
27 - 29	—	—	—	Not Occupied	—	—
30	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	L5P
31	0.5	BN	25	Charge Indicator Control	I	L5P
32 - 36	—	—	—	Not Occupied	—	—
37	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	L5P
38	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	L5P
39	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	L5P
40	0.5	VT/RD	3652	EGR Cooler Bypass Position Sensor 5V Reference	I	L5P
41	0.5	GN/GY	3654	EGR Cooler Bypass Position Sensor Signal	I	L5P
42	0.5	BK/BU	3653	EGR Cooler Bypass Position Sensor Low Reference	I	L5P
43	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	L5P
44	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	L5P
45	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	L5P
46 - 49	—	—	—	Not Occupied	—	—
50	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	L5P
51	0.5	GY	23	Generator Field Duty Cycle Signal	I	L5P
52 - 56	—	—	—	Not Occupied	—	—
57	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	L5P
58	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	L5P
59	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	L5P
60	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	L5P
61	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	L5P
62	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	L5P

K20 Engine Control Module X2 (L5P) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
63 - 68	—	—	—	Not Occupied	—	—
69	0.5	BN/BU	2926	Hydrocarbon Injector High Control	I	L5P
70	—	—	—	Not Occupied	—	—
71	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	I	L5P
72	0.5	VT/BN	2927	Hydrocarbon Injector Low Control	I	L5P
73	—	—	—	Not Occupied	—	—
74	0.5	YE	581	Throttle Actuator Control Open	I	L5P
75	0.5	BN/WH	582	Throttle Actuator Control Close	I	L5P
76	0.75	BK/YE	2834	Fuel Rail Pressure Solenoid Low Reference	I	L5P
77 - 79	—	—	—	Not Occupied	—	—
80	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	L5P
81	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	I	L5P
82	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	L5P
83	—	—	—	Not Occupied	—	—
84	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	L5P
85	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	L5P
86	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	L5P
87	0.5	BN/GN	1174	Oil Level Switch Signal	I	L5P
88 - 90	—	—	—	Not Occupied	—	—
91	0.5	BU/GN	7071	Heater Fuel Control	I	L5P
92	0.5	BN/VT	3656	EGR Cooler Bypass Motor Close Control	I	L5P
93	0.5	YE/GN	3655	EGR Cooler Bypass Motor Open Control	I	L5P
94	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Motor Low Signal	I	L5P
95	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve Motor High Signal	I	L5P
96	0.75	BU/WH	2530	Fuel Rail Pressure Solenoid Control	I	L5P

K20 Engine Control Module X2 (L83/L86+MYC/M5U/NQH/NQG)



1590592

Connector Part Information

Harness Type: Engine
OEM Connector: 13820450
Service Connector: 19301191
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

K20 Engine Control Module X2 (L83/L86+MYC/M5U/NQH/NQG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT/WH	821	Vehicle Speed Sensor Signal	I	—
7	0.5	BK/GN	822	Vehicle Speed Sensor Low Reference	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—
11	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—
12	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—
13	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	GY/BU	7564	Humidity Sensor Signal	I	—
16	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
19 - 25	—	—	—	Not Occupied	—	—

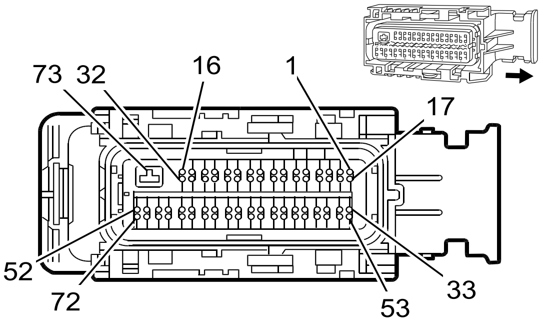
K20 Engine Control Module X2 (L83/L86+MYC/M5U/NQH/NQG) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
28	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
29	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.5	YE	581	Throttle Actuator Control Open	I	—
33	—	—	—	Not Occupied	—	—
34	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
35	—	—	—	Not Occupied	—	—
36	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
37	0.75	WH/GY	1876	Knock Sensor Signal 2	I	—
38 - 39	—	—	—	Not Occupied	—	—
40	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	I	—
41	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
42	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
43	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
44	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	GY/BN	2410	Fuel Pump Prime Control	I	—
47 - 48	—	—	—	Not Occupied	—	—
49	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	—
52	0.5	GN/WH	492	Mass Air Flow Sensor Signal	I	—
53	0.5	BN	25	Charge Indicator Control	I	—
54	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
55	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
56	0.75	BK/YE	1716	Knock Sensor Low Reference 1	I	—
57	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—
58	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
59	0.5	BU	179	Oil Pump Command Signal	I	—
60	0.5	BN/GN	1174	Oil Level Switch Signal	I	—
61	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
62	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
63	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
64	—	—	—	Not Occupied	—	—
65	0.5	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	I	—
66 - 68	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (L83/L86+MYC/M5U/NQH/NQG) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
69	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor Low Reference	I	—
70	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
71 - 72	—	—	—	Not Occupied	—	—
73	2.5	BK/WH	451	Signal Ground	II	—

K20 Engine Control Module X2 (L83+MYC-NQH/NQG)



1590592

Connector Part Information

Harness Type: Engine
OEM Connector: 13820450
Service Connector: 19301191
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

K20 Engine Control Module X2 (L83+MYC-NQH/NQG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4 - 7	—	—	—	Not Occupied	—	—
8	0.5	BN/WH	6354	Output Speed High (Replicated TOS) Input Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—
11	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—
12	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—
13	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	GY/BU	7564	Humidity Sensor Signal	I	—
16	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
19 - 25	—	—	—	Not Occupied	—	—

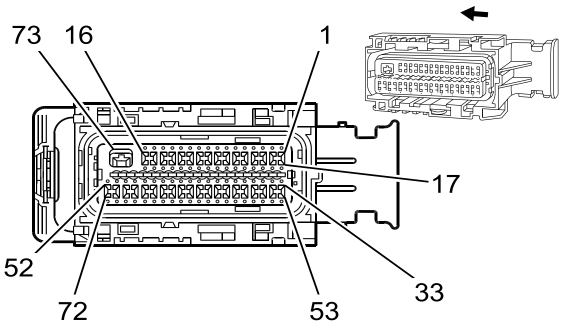
K20 Engine Control Module X2 (L83+MYC-NQH/NQG) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
28	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
29	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.5	YE	581	Throttle Actuator Control Open	I	—
33	—	—	—	Not Occupied	—	—
34	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
35	—	—	—	Not Occupied	—	—
36	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
37	0.75	WH/GY	1876	Knock Sensor Signal 2	I	—
38 - 39	—	—	—	Not Occupied	—	—
40	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	I	—
41	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
42	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
43	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
44	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	GY/BN	2410	Fuel Pump Prime Control	I	—
47 - 48	—	—	—	Not Occupied	—	—
49	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	—
52	0.5	GN/WH	492	Mass Air Flow Sensor Signal	I	—
53	0.5	BN	25	Charge Indicator Control	I	—
54	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
55	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
56	0.75	BK/YE	1716	Knock Sensor Low Reference 1	I	—
57	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—
58	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
59	0.5	BU	179	Oil Pump Command Signal	I	—
60	0.5	BN/GN	1174	Oil Level Switch Signal	I	—
61	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
62	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
63	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
64	—	—	—	Not Occupied	—	—
65	0.5	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	I	—
66 - 68	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (L83+MYC-NQH/NQG) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
69	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor Low Reference	I	—
70	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
71 - 72	—	—	—	Not Occupied	—	—
73	2.5	BK/WH	451	Signal Ground	II	—

K20 Engine Control Module X2 (L8B)



1673472

Connector Part Information

Harness Type: Engine
OEM Connector: 33152986
Service Connector: 19301191
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

K20 Engine Control Module X2 (L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT/WH	821	Vehicle Speed Sensor Signal	I	—
7	0.5	BK/GN	822	Vehicle Speed Sensor Low Reference	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—
11	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—
12	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—
13	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	GY/BU	7564	Humidity Sensor Signal	I	—
16	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
19 - 25	—	—	—	Not Occupied	—	—

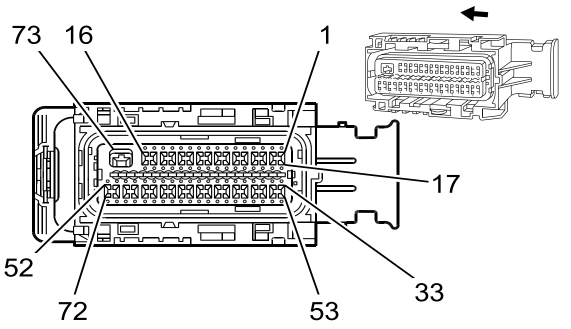
K20 Engine Control Module X2 (L8B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
28	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
29	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.5	YE	581	Throttle Actuator Control Open	I	—
33	—	—	—	Not Occupied	—	—
34	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
35	—	—	—	Not Occupied	—	—
36	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
37	0.75	WH/GY	1876	Knock Sensor Signal 2	I	—
38 - 40	—	—	—	Not Occupied	—	—
41	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
42	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
43	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
44	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
45 - 46	—	—	—	Not Occupied	—	—
47	0.5	VT/YE	3854	Cabin Heater Coolant Motor Control	I	—
48	—	—	—	Not Occupied	—	—
49	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	—
52	0.5	GN/WH	492	Mass Air Flow Sensor Signal	I	—
53	—	—	—	Not Occupied	—	—
54	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
55	—	—	—	Not Occupied	—	—
56	0.75	BK/YE	1716	Knock Sensor Low Reference 1	I	—
57	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—
58	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
59	0.5	BU	179	Oil Pump Command Signal	I	—
60	0.5	BN/GN	1174	Oil Level Switch Signal	I	—
61	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
62	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
63	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
64	—	—	—	Not Occupied	—	—
65	0.5	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	I	—
66 - 68	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (L8B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
69	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor Low Reference	I	—
70	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
71 - 72	—	—	—	Not Occupied	—	—
73	2.5	BK/WH	451	Signal Ground	II	—

K20 Engine Control Module X2 (L96)



1673472

Connector Part Information

Harness Type: Engine
OEM Connector: 33152986
Service Connector: 19301191
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

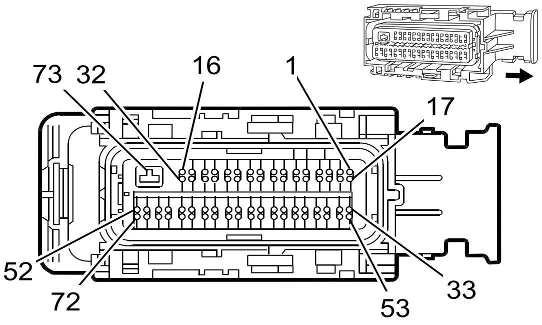
K20 Engine Control Module X2 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/VT	2121	Ignition Control 1	I	—
2	0.5	GN/YE	1744	Fuel Injector Control 1	I	—
3	0.5	BN/GY	878	Fuel Injector Control 8	I	—
4	0.5	BN/VT	877	Fuel Injector Control 7	I	—
5	0.5	YE/WH	1745	Fuel Injector Control 2	I	—
6	0.5	BN/BU	846	Fuel Injector Control 6	I	—
7	0.5	BN/GN	845	Fuel Injector Control 5	I	—
8	0.5	BN/YE	844	Fuel Injector Control 4	I	—
9	0.5	BN/VT	1746	Fuel Injector Control 3	I	—
10	—	—	—	Not Occupied	—	—
11	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—
12 - 14	—	—	—	Not Occupied	—	—
15	0.5	YE	581	Throttle Actuator Control Open	I	—
16	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
17	0.5	VT/WH	2128	Ignition Control 8	I	—
18	0.5	YE/BU	2124	Ignition Control 4	I	—
19	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
20	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
21 - 23	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (L96) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
25	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.75	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—
29	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—
30 - 32	—	—	—	Not Occupied	—	—
33	0.5	GN/GY	2127	Ignition Control 7	I	—
34	0.5	BU/GY	2125	Ignition Control 5	I	—
35	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
36	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—
37 - 39	—	—	—	Not Occupied	—	—
40	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	—
41	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
42	—	—	—	Not Occupied	—	—
43	0.5	BN/YE	2701	Throttle Position Sensor 5V Reference	I	—
44	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
45	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
46	—	—	—	Not Occupied	—	—
47	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
48	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
49	0.75	BK/YE	1716	Knock Sensor Low Reference 1	I	—
50	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—
51	—	—	—	Not Occupied	—	—
52	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
53	0.5	BU/WH	2122	Ignition Control 2	I	—
54	0.5	BN/BU	2126	Ignition Control 6	I	—
55	0.5	GN/BU	2123	Ignition Control 3	I	—
56	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—
57 - 59	—	—	—	Not Occupied	—	—
60	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—
61	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
62 - 66	—	—	—	Not Occupied	—	—
67	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—
68	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—
69	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
70	0.75	WH/GY	1876	Knock Sensor Signal 2	I	—
71	—	—	—	Not Occupied	—	—
72	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
73	2.5	BK/WH	451	Signal Ground	II	—

K20 Engine Control Module X2 (LV3+NQH/NQG)



1590592

Connector Part Information

Harness Type: Engine
OEM Connector: 13820450
Service Connector: 19301191
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

K20 Engine Control Module X2 (LV3+NQH/NQG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT/WH	821	Vehicle Speed Sensor Signal	I	—
7	0.5	BK/GN	822	Vehicle Speed Sensor Low Reference	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—
11	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—
12	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—
13	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	GY/BU	7564	Humidity Sensor Signal	I	—
16	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
19 - 25	—	—	—	Not Occupied	—	—

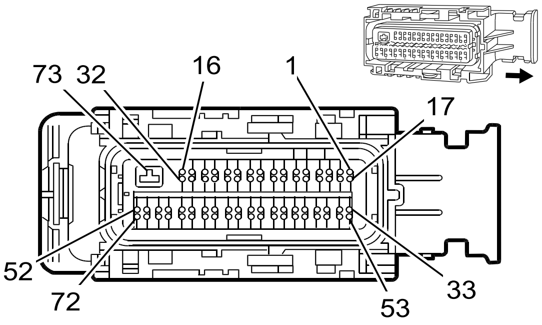
K20 Engine Control Module X2 (LV3+NQH/NQG) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
28	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
29	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.5	YE	581	Throttle Actuator Control Open	I	—
33	—	—	—	Not Occupied	—	—
34	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
35	—	—	—	Not Occupied	—	—
36	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
37	0.75	WH/GY	1876	Knock Sensor Signal 2	I	—
38 - 40	—	—	—	Not Occupied	—	—
41	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
42	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
43	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
44	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	GY/BN	2410	Fuel Pump Prime Control	I	—
47 - 48	—	—	—	Not Occupied	—	—
49	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	—
52	0.5	GN/WH	492	Mass Air Flow Sensor Signal	I	—
53	0.5	BN	25	Charge Indicator Control	I	—
54	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
55	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
56	0.75	BK/YE	1716	Knock Sensor Low Reference 1	I	—
57	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—
58	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
59	0.5	BU	179	Oil Pump Command Signal	I	—
60	0.5	BN/GN	1174	Oil Level Switch Signal	I	—
61	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
62	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
63	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
64	—	—	—	Not Occupied	—	—
65	0.5	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	I	—
66 - 68	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (LV3+NQH/NQG) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
69	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor Low Reference	I	—
70	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
71 - 72	—	—	—	Not Occupied	—	—
73	2.5	BK/WH	451	Signal Ground	II	—

K20 Engine Control Module X2 (-NQH/NQG)



1590592

Connector Part Information

Harness Type: Engine
OEM Connector: 13820450
Service Connector: 19301191
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

K20 Engine Control Module X2 (-NQH/NQG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	GY/BK	3096	Output Speed (Digital) Sensor 5V Reference	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5 0.5	BN/WH GN	6354 3098	Output Speed High (Replicated TOS) Input Signal Output Speed (Digital) Signal	I I	L83/L86/L8B/LV3+E92 MXW
9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—
11	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—
12	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—
13	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	GY/BU	7564	Humidity Sensor Signal	I	—
16	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
17	—	—	—	Not Occupied	—	—

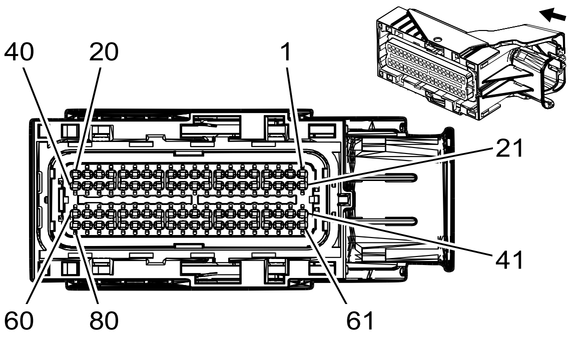
K20 Engine Control Module X2 (-NQH/NQG) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	WH/BK	3097	Output Speed (Digital) Sensor Low Reference	I	—
22	—	—	—	Not Occupied	—	—
23	0.5	GN/WH	5007	Reverse Switch Signal	I	—
24 - 25	—	—	—	Not Occupied	—	—
26	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
28	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
29	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.5	YE	581	Throttle Actuator Control Open	I	—
33	—	—	—	Not Occupied	—	—
34	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
35	—	—	—	Not Occupied	—	—
36	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
37	0.75	WH/GY	1876	Knock Sensor Signal 2	I	—
38 - 40	—	—	—	Not Occupied	—	—
41	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
42	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
43	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
44	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	GY/BN	2410	Fuel Pump Prime Control	I	—
47 - 48	—	—	—	Not Occupied	—	—
49	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	—
52	0.5	GN/WH	492	Mass Air Flow Sensor Signal	I	—
53	0.5	BN	25	Charge Indicator Control	I	—
54	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
55	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
56	0.75	BK/YE	1716	Knock Sensor Low Reference 1	I	—
57	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—
58	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
59	0.5	BU	179	Oil Pump Command Signal	I	—
60	0.5	BN/GN	1174	Oil Level Switch Signal	I	—
61	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
62	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—

K20 Engine Control Module X2 (-NQH/NQG) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
63	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
64	—	—	—	Not Occupied	—	—
65	0.5	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	I	—
66 - 68	—	—	—	Not Occupied	—	—
69	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor Low Reference	I	—
70	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
71 - 72	—	—	—	Not Occupied	—	—
73	2.5	BK/WH	451	Signal Ground	II	—

K20 Engine Control Module X3 (L5P)



2474736

Connector Part Information

Harness Type: Engine
OEM Connector: 13782479
Service Connector: 13577545
Description: 80-Way F MX123 Series, Sealed (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available

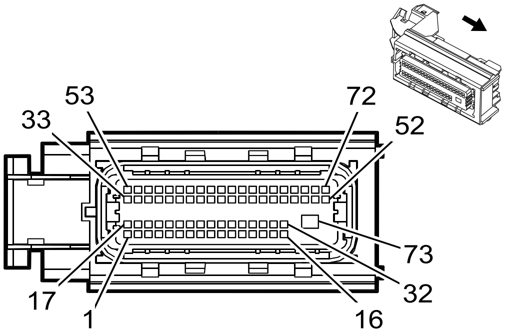
K20 Engine Control Module X3 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	3099	DEF Dosing Valve High Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GN/BU	3889	DEF Power Module Relay Control	I	—
4 - 11	—	—	—	Not Occupied	—	—
12	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—
13	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—
14	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—
15	0.5	BK/BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	—
16	0.5	BK/VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—
17	0.5	BK/GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—
18	0.5	BK/GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
19	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
20	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
21	0.75	BN/WH	3100	DEF Dosing Valve Low Control	I	—
22 - 24	—	—	—	Not Occupied	—	—

K20 Engine Control Module X3 (L5P) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.5	WH/GN	6142	Power Take Off Engine Shutdown Signal	I	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
29	0.5	BN/GN	5266	Ambient Air Pressure Sensor Signal	I	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.5	GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
33	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
34	0.5	YE/GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—
35	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	—
36	0.5	BU/GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—
37	0.5	VT/BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—
38	0.5	GY/GN	5378	Exhaust Gas Temperature Sensor 3	I	—
39	0.5	BU/GN	5377	Exhaust Gas Temperature Sensor 2	I	—
40	0.5	BU/WH	5277	Exhaust Gas Temperature Sensor 1	I	—
41 - 64	—	—	—	Not Occupied	—	—
65	0.5	BK/BN	6141	Cooling Fan Speed Low Reference	I	—
66	0.5	BU/VT	2364	Cooling Fan Speed Signal	I	—
67	0.5	GY/RD	2365	Cooling Fan Speed 5V Reference	I	—
68 - 75	—	—	—	Not Occupied	—	—
76	0.5	BK/YE	6055	Exhaust Pressure Sensor Low Reference 1	I	—
77	0.5	BU	6053	Exhaust Pressure Sensor Signal 1	I	—
78	0.5	WH/RD	6054	Exhaust Pressure Sensor 5V Reference 1	I	—
79 - 80	—	—	—	Not Occupied	—	—

K20 Engine Control Module X3 (L83/L86)



3240140

Connector Part Information

Harness Type: Engine
OEM Connector: 13820451
Service Connector: 19260918
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

K20 Engine Control Module X3 (L83/L86)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
3 - 7	—	—	—	Not Occupied	—	—
8	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—
11	0.5	GN/BU	2123	Ignition Control 3	I	—
12	0.5	YE/BU	2124	Ignition Control 4	I	—
13	0.5	BU/GY	2125	Ignition Control 5	I	—
14	0.5	BN/BU	2126	Ignition Control 6	I	—
15	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
16	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	I	—
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
18 - 22	—	—	—	Not Occupied	—	—
23	0.5	BK/YE	4082	Hood Latch Sensor Low Reference	I	—
24	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
25	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
26	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—

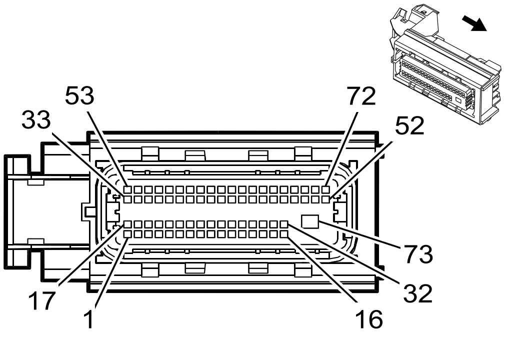
K20 Engine Control Module X3 (L83/L86) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27	0.5	BU/WH	2122	Ignition Control 2	I	—
28	0.5	GN/GY	2127	Ignition Control 7	I	—
29	0.5	VT/WH	2128	Ignition Control 8	I	—
30	0.5	BU/VT	2121	Ignition Control 1	I	—
31	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	I	—
33	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—
34	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	—
35 - 38	—	—	—	Not Occupied	—	—
39	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—
40 - 42	—	—	—	Not Occupied	—	—
43	0.5	GY	5493	Cylinder Shutoff Solenoid Control 3	I	—
44	0.5	YE/BU	5494	Cylinder Shutoff Solenoid Control 4	I	—
45	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	—
46	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	I	—
47	0.75	GN/VT	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	I	—
48	0.75	GY	4808	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	I	—
49	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	I	—
50	0.75	YE/GY	4807	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	I	—
51	0.75	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	I	—
52	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	I	—
53	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—
60 - 62	—	—	—	Not Occupied	—	—
63	0.5	BU	5491	Cylinder Shutoff Solenoid Control 1	I	—
64	0.5	GN	5492	Cylinder Shutoff Solenoid Control 2	I	—
65	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	—
66	0.75	BN/GN	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	I	—
67	0.75	VT	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	I	—
68	0.75	WH/GN	4908	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	I	—
69	0.75	GN/BK	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	I	—
70	0.75	WH/YE	4907	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	I	—
71	0.75	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	I	—

K20 Engine Control Module X3 (L83/L86) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
72	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	I	—
73	2.5	BK/WH	451	Signal Ground	II	—

K20 Engine Control Module X3 (L8B)



3240140

Connector Part Information

Harness Type: Engine
OEM Connector: 33157045
Service Connector: 19260918
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

K20 Engine Control Module X3 (L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
3 - 7	—	—	—	Not Occupied	—	—
8	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—
11	0.5	GN/BU	2123	Ignition Control 3	I	—
12	0.5	YE/BU	2124	Ignition Control 4	I	—
13	0.5	BU/GY	2125	Ignition Control 5	I	—
14	0.5	BN/BU	2126	Ignition Control 6	I	—
15	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
16	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	I	—
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
18 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
25	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
26	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—
27	0.5	BU/WH	2122	Ignition Control 2	I	—

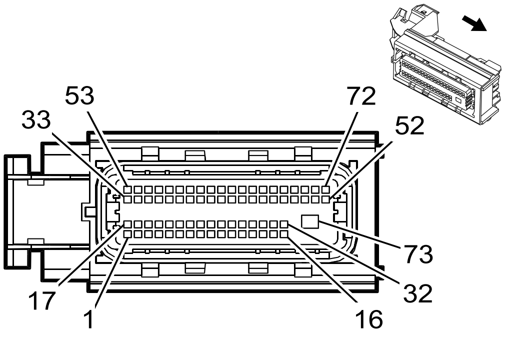
K20 Engine Control Module X3 (L8B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	0.5	GN/GY	2127	Ignition Control 7	I	—
29	0.5	VT/WH	2128	Ignition Control 8	I	—
30	0.5	BU/VT	2121	Ignition Control 1	I	—
31	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	I	—
33	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—
34	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	—
35 - 38	—	—	—	Not Occupied	—	—
39	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—
40 - 42	—	—	—	Not Occupied	—	—
43	0.5	GY	5493	Cylinder Shutoff Solenoid Control 3	I	—
44	0.5	YE/BU	5494	Cylinder Shutoff Solenoid Control 4	I	—
45	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	—
46	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	I	—
47	0.75	GN/VT	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	I	—
48	0.75	GY	4808	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	I	—
49	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	I	—
50	0.75	YE/GY	4807	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	I	—
51	0.75	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	I	—
52	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	I	—
53	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—
60 - 62	—	—	—	Not Occupied	—	—
63	0.5	BU	5491	Cylinder Shutoff Solenoid Control 1	I	—
64	0.5	GN	5492	Cylinder Shutoff Solenoid Control 2	I	—
65	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	—
66	0.75	BN/GN	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	I	—
67	0.75	VT	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	I	—
68	0.75	WH/GN	4908	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	I	—
69	0.75	GN/BK	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	I	—
70	0.75	WH/YE	4907	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	I	—
71	0.75	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	I	—

K20 Engine Control Module X3 (L8B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
72	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	I	—
73	2.5	BK/WH	451	Signal Ground	II	—

K20 Engine Control Module X3 (L96)



3240140

Connector Part Information

Harness Type: Engine
OEM Connector: 33157048
Service Connector: 19260918
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available

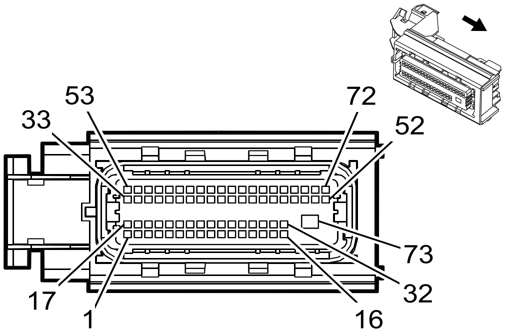
K20 Engine Control Module X3 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/WH	5007	Reverse Switch Signal	I	—
2 - 9	—	—	—	Not Occupied	—	—
10	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	—
11 - 15	—	—	—	Not Occupied	—	—
16	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
17	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
18 - 21	—	—	—	Not Occupied	—	—
22	0.5 0.5	BK/GY BK/BN	6110 5360	Clutch Apply Sensor Low Reference Brake Apply Sensor Low Reference	I I	MQ7 -MQ7
23 - 26	—	—	—	Not Occupied	—	—
27	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
28	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
29	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
30	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
31	—	—	—	Not Occupied	—	—
32	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
33 - 37	—	—	—	Not Occupied	—	—
38	0.5	GY/RD	6109	Clutch Apply Sensor 5V Reference	I	MQ7

K20 Engine Control Module X3 (L96) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
	0.5	WH	5359	Brake Apply Sensor Control	I	-MQ7
39 - 42	—	—	—	Not Occupied	—	—
43	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
44	0.5	BU/WH	1937	Secondary Fuel Level Sensor Signal	I	—
45	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
46	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—
47	—	—	—	Not Occupied	—	—
48	0.5	VT/WH	821	Vehicle Speed Sensor Signal	I	—
49	0.5	BK/GN	822	Vehicle Speed Sensor Low Reference	I	—
50 - 54	—	—	—	Not Occupied	—	—
55	0.5	BN/WH	6354	Output Speed High (Replicated TOS) Input Signal	I	—
56 - 57	—	—	—	Not Occupied	—	—
58	0.5	YE	6111	Clutch Apply Sensor Signal	I	MQ7
	0.5	BU/YE	5361	Brake Apply Sensor Signal	I	-MQ7
59 - 62	—	—	—	Not Occupied	—	—
63	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
64	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
65	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—
66	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
67	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—
68	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
69 - 73	—	—	—	Not Occupied	—	—

K20 Engine Control Module X3 (LV3)



3240140

Connector Part Information

Harness Type: Engine
OEM Connector: 13820451
Service Connector: 19260918
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

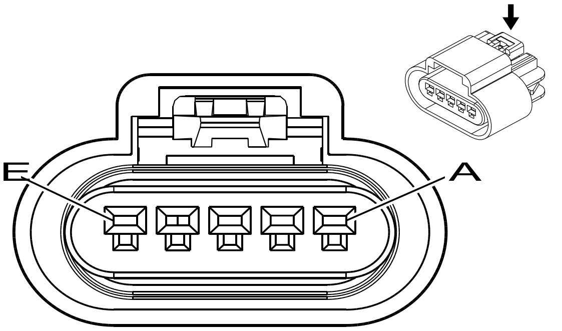
K20 Engine Control Module X3 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
3 - 7	—	—	—	Not Occupied	—	—
8	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	BU/WH	2122	Ignition Control 2	I	—
14	0.5	GN/BU	2123	Ignition Control 3	I	—
15	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
16	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	I	—
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
18 - 22	—	—	—	Not Occupied	—	—
23	0.5	BK/YE	4082	Hood Latch Sensor Low Reference	I	—
24	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
25	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
26	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—
27	0.5	YE/BU	2124	Ignition Control 4	I	—

K20 Engine Control Module X3 (LV3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	0.5	BU/GY	2125	Ignition Control 5	I	—
29	0.5	BN/BU	2126	Ignition Control 6	I	—
30	0.5	BU/VT	2121	Ignition Control 1	I	—
31	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	I	—
33	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—
34	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	—
35 - 38	—	—	—	Not Occupied	—	—
39	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	—
47	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	I	—
48	0.75	GN/VT	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	I	—
49	—	—	—	Not Occupied	—	—
50	0.75	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	I	—
51	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	I	—
52	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	I	—
53	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—
60 - 62	—	—	—	Not Occupied	—	—
63	0.5	BU	5491	Cylinder Shutoff Solenoid Control 1	I	—
64	0.5	GN	5492	Cylinder Shutoff Solenoid Control 2	I	—
65	—	—	—	Not Occupied	—	—
66	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	—
67	0.75	GN/BK	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	I	—
68	0.75	VT	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	I	—
69	—	—	—	Not Occupied	—	—
70	0.75	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	I	—
71	0.75	BN/GN	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	I	—
72	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	I	—
73	2.5	BK/WH	451	Signal Ground	II	—

K22 Cooling Fan Control Module



647974

Connector Part Information

Harness Type: Engine
OEM Connector: 13519051
Service Connector: 13585858
Description: 5-Way F 150 GT Series, Sealed (BK)

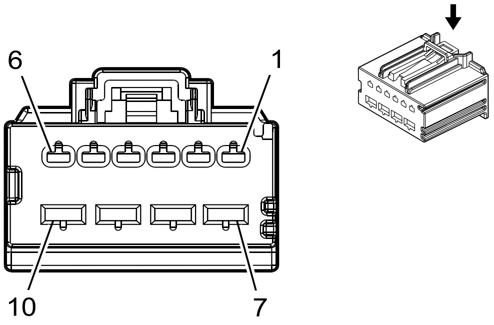
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K22 Cooling Fan Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BK	550	Ground	I	—
B	0.5	WH	2368	Cooling Fan Control Signal	I	—
C	0.5	BK/BN	6141	Cooling Fan Speed Low Reference	I	—
D	0.5	BU/VT	2364	Cooling Fan Speed Signal	I	—
E	0.5	GY/RD	2365	Cooling Fan Speed 5V Reference	I	—

K29 Seat Heating Control Module X1



3791446

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 31372-1000
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 Series (BK)

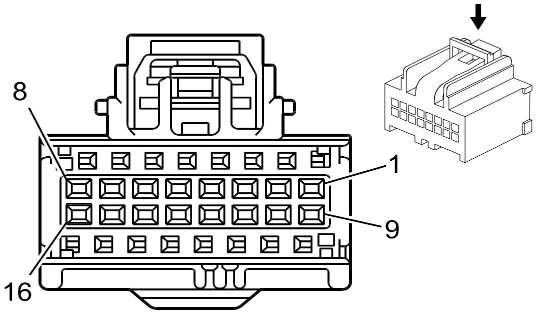
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K29 Seat Heating Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/BN	2481	Passenger Heated Back Element Control	I	—
2	0.75	BN/BU	2479	Passenger Heated Seat Element Control	I	—
3	0.75	GY/BK	2480	Passenger Heated Seat Element Low Reference	I	—
4	0.75	BN/BK	2078	Driver Heated Seat Element Low Reference	I	—
5	0.75	BN	2432	Driver Heated Back Element Control	I	—
6	0.75	BN/VT	2077	Driver Heated Seat Element Control	I	—
7	0.75	RD/GN	6140	Battery Positive Voltage	II	—
8	0.75	BK	1250	Ground	II	—
9	—	—	—	Not Occupied	—	—
10	0.75	RD/GN	5140	Battery Positive Voltage	II	—

K29 Seat Heating Control Module X2



1653409

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 15136073
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 Kaizen Series (BK)

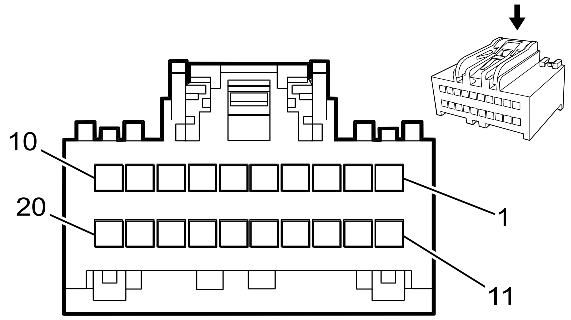
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K29 Seat Heating Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	2080	Driver Heated Seat NTC Low Reference	I	—
2	0.5	BK/GY	2435	Passenger Heated Seat NTC Low Reference	I	—
3	0.5	BU	2425	Driver Heated Back NTC Signal	I	—
4	0.5	WH/BU	2436	Passenger Heated Back NTC Signal	I	—
5	0.5	WH/GY	2434	Passenger Heated Seat NTC Signal	I	—
6	0.5	YE/GY	2079	Driver Heated Seat NTC Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	GN/BU	6133	Local Interconnect Network Serial Data Bus 2	I	—
9	0.35	GN/VT	5906	Driver Seat Vent Motor Control 1	I	—
10	0.35	VT/WH	5908	Passenger Seat Vent Motor Control 1	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	BK/GN	2482	Passenger Heated Back NTC Low Reference	I	—
13 - 16	—	—	—	Not Occupied	—	—

K33 HVAC Control Module X1



2180227

Connector Part Information

Harness Type: HVAC
OEM Connector: 19153728
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 0.64 Series (GN)

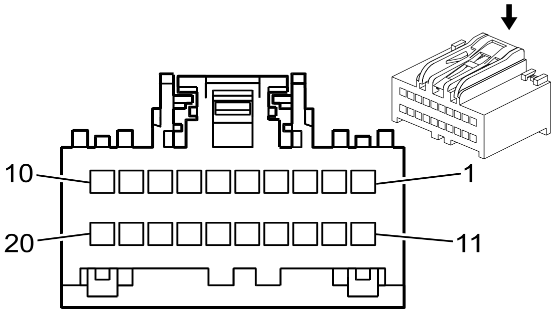
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

K33 HVAC Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	GY/GN	7565	Windscreen Temp Sensor Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BU/WH	734	Inside Air Temperature Sensor Signal	I	—
5	0.35	YE/BU	3197	Humidity Temperature Sensor Signal	I	—
6	0.35	YE/RD	597	5V Reference	I	—
7	0.35	BK/BU	7566	Humidity/Windscreen Temp Sensor Low Reference	I	—
8 - 11	—	—	—	Not Occupied	—	—
12	0.35	GY/BU	7564	Humidity Sensor Signal	I	—
13	0.35	YE/VT	1783	Twilight Sentinel Delay Signal	I	-UE1
14	0.35	YE/VT	1783	Twilight Sentinel Delay Signal	I	UE1
15 - 19	—	—	—	Not Occupied	—	—
20	0.35	GY	590	Solar Sensor Driver Signal	I	—

K33 HVAC Control Module X2



1715226

Connector Part Information

Harness Type: HVAC
OEM Connector: 15126709
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F USCAR 64 Series (BN with WH Terminal Position Assurance)

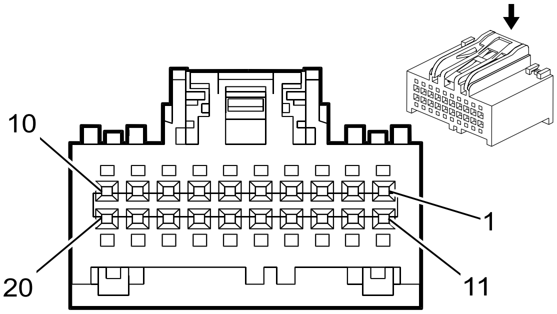
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

K33 HVAC Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/VT	3340	Battery Positive Voltage	I	—
2	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	GN/YE	7531	Local Interconnect Network Serial Data Bus 9	I	—
5	0.5	YE/GN	3196	Auxiliary Heater Status Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	VT	3195	Auxiliary Heater Control	I	—
8	0.35	BK/WH	1851	Signal Ground	I	—
9	0.5	VT/GY	539	Run/Crank Ignition 1 Voltage	I	—
10	0.5	BU/YE	7574	Electric Variable Displacement Control	I	—
11	0.5	BU/BN	7573	Electric Variable Displacement Supply	I	—
12 - 14	—	—	—	Not Occupied	—	—
15	0.35	BU/GY	754	Blower Motor Speed Control	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	GY/RD	598	5V Reference	I	—
18 - 20	—	—	—	Not Occupied	—	—

K33 HVAC Control Module X3



1715223

Connector Part Information

Harness Type: HVAC
OEM Connector: 15126711
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 0.64 Series (BK)

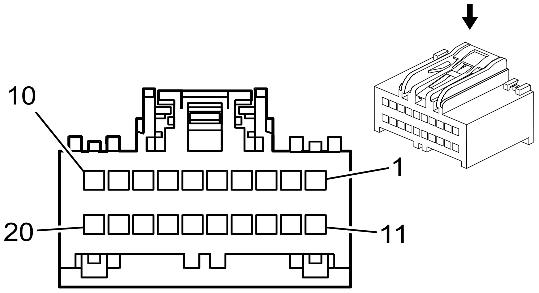
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

K33 HVAC Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU	516	Upper Left Air Temperature Sensor Signal	I	—
2	0.35	YE/BN	2273	Mode Door Control	I	—
3	0.35	WH	119	Mode Door Control	I	—
4	0.35	WH/GN	2275	Mode 1 Valve Position Sensor Signal	I	—
5 - 8	—	—	—	Not Occupied	—	—
9	0.35	BK/YE	407	Sensor Low Reference	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	GY/GN	2210	Air Temperature Door Control	I	—
12	0.35	BU/BN	1199	Air Temperature Door Control	I	—
13	0.35	BU/YE	733	Air Temperature Door Position Signal	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.35	YE/BK	2274	Recirculation Door Control	I	—
17	0.35	GN	1614	Recirculation Door Control	I	—
18	0.35	VT/GN	1838	Recirculation Door Position Signal	I	—
19	—	—	—	Not Occupied	—	—
20	0.35	GY	6137	EVAP Core Temperature Sensor Signal	I	—

K33 HVAC Control Module X4



1715228

Connector Part Information

Harness Type: HVAC
OEM Connector: 15126710
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F USCAR 64 Series (GY)

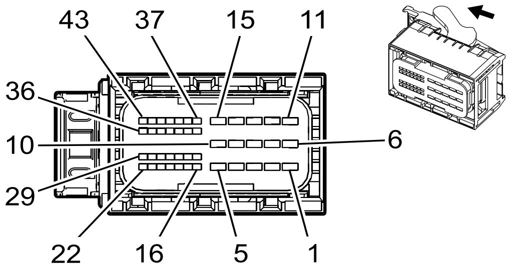
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

K33 HVAC Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.35	GY/BK	2778	Passenger Air Temperature Motor Control	I	—
6	0.35	WH/BK	1236	Passenger Air Temperature Door Control	I	—
7	0.35	BN/BU	1646	Passenger Air Temperature Door Position Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	YE	517	Upper Right Air Temperature Sensor Signal	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	GN	518	Lower Left Air Temperature Sensor Signal	I	—
12	0.35	RD	520	Lower Right Air Temperature Sensor Signal	I	—
13 - 20	—	—	—	Not Occupied	—	—

K34 Glow Plug Control Module X2



2424957

Connector Part Information

Harness Type: Engine
OEM Connector: 10001042
Service Connector: 13576417
Description: 43-Way F 1.2, 2.8 Series, Sealed

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576372	J-35616-4A (PU)	J-38125-556	Not Available	Not Available	Not Available	Not Available
II	13580008	J-35616-16 (LT GN)	J-38125-21	Not Available	Not Available	Not Available	Not Available

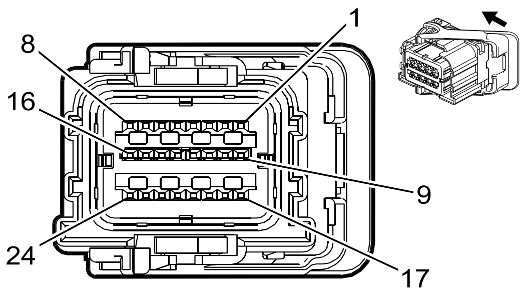
K34 Glow Plug Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	2	GY/YE	1584	Glow Plug Control 4	I	L5P
3	2	GY/GN	1583	Glow Plug Control 3	I	L5P
4	2	GY/BN	1582	Glow Plug Control 2	I	L5P
5	2	GY/BU	1581	Glow Plug Control 1	I	L5P
6 - 9	—	—	—	Not Occupied	—	—
10	2	BK	550	Ground	I	L5P
11	—	—	—	Not Occupied	—	—
12	2	GY/WH	1585	Glow Plug Control 5	I	L5P
13	2	GY/VT	1586	Glow Plug Control 6	I	L5P
14	2	WH/BK	1587	Glow Plug Control 7	I	L5P
15	2	WH/BU	1588	Glow Plug Control 8	I	L5P
16	0.5	BK	92	Windshield Wiper Motor High Speed Control	II	L5P
17	0.5	BK	93	Fuel Door Release Relay Control	II	L5P
18	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	L5P
19	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	L5P
20 - 22	—	—	—	Not Occupied	—	—
23	0.5	BK	23	Generator Field Duty Cycle Signal	II	L5P
24	0.5	BK	24	Backup Lamp Control	II	L5P

K34 Glow Plug Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	L5P
26	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	L5P
27 - 29	—	—	—	Not Occupied	—	—
30	0.5	BK	30	Fuel Level Sensor Signal	II	L5P
31	0.5	BK	31	Oil Pressure Indicator Control	II	L5P
32	—	—	—	Not Occupied	—	—
33	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	II	L5P
34 - 36	—	—	—	Not Occupied	—	—
37	0.5	BK	37	Engine Metal Temperature Sensor Signal	II	L5P
38	0.5	BK	38	Backup Lamp Relay Control	II	L5P
39	—	—	—	Not Occupied	—	—
40	0.5	VT/YE	443	Accessory Ignition Voltage	II	L5P
41 - 43	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1



3240106

Connector Part Information

Harness Type: Body
OEM Connector: 13887360
Service Connector: 19328755
Description: 24-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19328872	J-35616-64B (LT BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

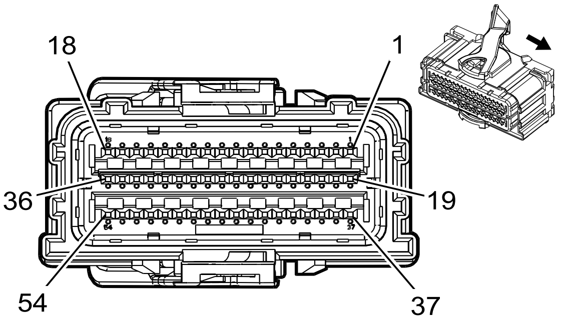
K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/GN	3023	Steering Wheel Module Stage 2 High Control	I	—
2	0.35	WH/OG	3022	Steering Wheel Module Stage 2 Low Control	I	—
3	0.35	BN/OG	3020	Steering Wheel Module Stage 1 Low Control	I	—
4	0.35	OG/VT	3021	Steering Wheel Module Stage 1 High Control	I	—
5	0.35	YE/OG	3025	Passenger IP Module Stage 1 High Control	I	—
6	0.35	OG/WH	3024	Passenger IP Module Stage 1 Low Control	I	—
7	0.35	OG/VT	3026	Passenger IP Module Stage 2 Low Control	I	—
8	0.35	GY/OG	3027	Passenger IP Module Stage 2 High Control	I	—
9	0.5	RD/GN	4440	Battery Positive Voltage	I	—
10	0.35	VT/WH	5234	Passenger Seat Belt Indicator Control	I	—
11	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
12	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
13	0.35	VT/OG	371	Passenger IP Module Disable Switch Signal	I	—
14	0.35	BU/OG	7328	Passenger IP Module Disable Switch Low Reference	I	—
15	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.5	WH/BU	5986	Serial Data Communication Enable	I	—
18	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	0.5 0.75	BK/WH BK/WH	2751 2751	Signal Ground Signal Ground	I I	AL0 SERIES20/ SERIES30 +AK5-AL0
20	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
21 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2



2817420

Connector Part Information

Harness Type: Body
OEM Connector: 13944372
Service Connector: 19303770
Description: 54-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19328872	J-35616-64B (LT BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Available	Not Available	Not Available	Not Available

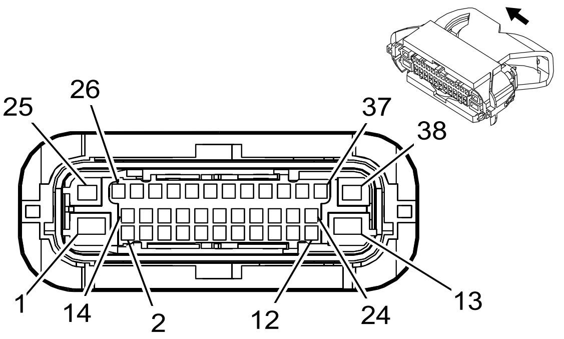
K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 8	—	—	—	Not Occupied	—	—
9	0.35	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
10	0.35	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—
11	0.35	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—
12	0.35	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
13	0.35	OG/BU	3068	Driver Side Impact Module High Control	I	—
14	0.35	GN/OG	3069	Driver Side Impact Module Low Control	I	—
15	0.35	BN/OG	3067	Passenger Side Impact Module Low Control	I	—
16	0.35	OG/GY	3066	Passenger Side Impact Module High Control	I	—
17	0.35	OG/GN	5019	Left Front Head Curtain Module High Control	I	—
18	0.35	VT/OG	5020	Left Front Head Curtain Module Low Control	I	—
19	0.35	OG/GN	2132	Left Front Side Impact Sensing Module Signal	I	—
20	0.35	BK/OG	6628	Left Front Side Impact Sensing Module Low Reference	I	—
21	0.35	BK/OG	6629	Right Front Side Impact Sensing Module Low Reference	I	—
22	0.35	BN/OG	2134	Right Front Side Impact Sensing Module Signal	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23	0.35	OG/YE	354	Left Front Discriminating Sensor Signal	I	—
24	0.35	BK/OG	5045	Left Front Discriminating Sensor Low Reference	I	—
25	0.35	BK/OG	5600	Right Front Discriminating Sensor Low Reference	I	—
26	0.35	OG/GN	1409	Right Front Discriminating Sensor Signal	I	—
27	0.35	OG/BU	6620	Left Middle Side Impact Sensing Module Signal	I	—
28	0.35	BK/OG	6621	Left Middle Side Impact Sensing Module Low Reference	I	—
29	0.35	BK/OG	6625	Right Middle Side Impact Sensing Module Low Reference	I	—
30	0.35	OG/VT	6624	Right Middle Side Impact Sensing Module Signal	I	—
31 - 36	—	—	—	Not Occupied	—	—
37	0.5 0.5	RD RD	3477 3477	Driver Seat Belt Retractor Pretensioner High Control Driver Seat Belt Retractor Pretensioner High Control	II I	CREW CAB/ UTILITY/ EXTENDED CAB REGULAR CAB
38	0.5 0.5	GY GY	3478 3478	Driver Seat Belt Retractor Pretensioner Low Control Driver Seat Belt Retractor Pretensioner Low Control	II I	CREW CAB/ UTILITY/ EXTENDED CAB REGULAR CAB
39	0.5 0.5	WH WH	3476 3476	Passenger Seat Belt Retractor Pretensioner Low Control Passenger Seat Belt Retractor Pretensioner Low Control	II I	CREW CAB/ UTILITY/ EXTENDED CAB REGULAR CAB
40	0.5 0.5	GN GN	3475 3475	Passenger Seat Belt Retractor Pretensioner High Control Passenger Seat Belt Retractor Pretensioner High Control	II I	CREW CAB/ UTILITY/ EXTENDED CAB REGULAR CAB
41	0.35	OG/BN	238	Driver Seat Belt Switch Signal	I	—
42	0.35	OG/GN	5055	Driver Seat Position Switch Signal	I	—
43	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	—
44	0.35	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	—
45	0.35	OG/VT	1362	Passenger Seat Belt Switch Signal	I	—
46 - 52	—	—	—	Not Occupied	—	—
53	0.35	OG/GY	5021	Right Front Head Curtain Module High Control	I	—
54	0.35	WH/OG	5022	Right Front Head Curtain Module Low Control	I	—

K38 Chassis Control Module



3240111

Connector Part Information

Harness Type: Chassis
OEM Connector: 33102981
Service Connector: 19329471
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119772	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
II	19301775	J-35616-40 (BU)	J-38125-556	Not Available	Not Available	Not Available	Not Available
III	19301776	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

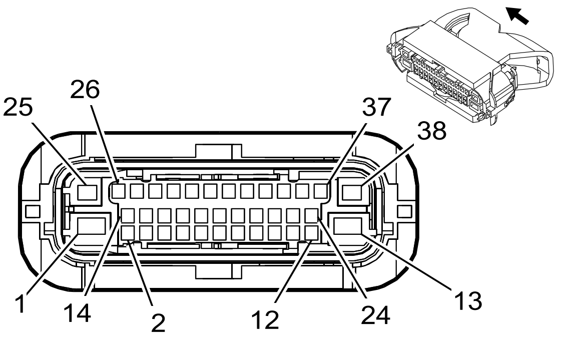
K38 Chassis Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/WH	2040	Battery Positive Voltage	II	—
2 - 12	—	—	—	Not Occupied	—	—
13	0.75	BK	1750	Ground	II	—
14	0.5	VT/YE	5985	Accessory Wakeup Serial Data	III	—
15	—	—	—	Not Occupied	—	—
16	0.5	BU/RD	7632	Integrated Trailer Brake Controller Switch 5V Reference	III	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN	7634	Integrated Trailer Brake Controller Redundant Manual Apply Signal	III	—
19	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	III	—
20	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	III	—
21	0.5	GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	III	—
22	0.5	YE/BK	2224	Trailer Brake Enable Signal	III	—
23	0.5	WH/BK	2223	Trailer Brake Control Signal	III	—
24	—	—	—	Not Occupied	—	—

K38 Chassis Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.75	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
26	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
27	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
28	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
29	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
30	0.5	GN/VT	4114	Local Interconnect Network Serial Data Bus 14	III	—
31 - 38	—	—	—	Not Occupied	—	—

K38A Chassis Control Module - Auxiliary (JL1)



3240111

Connector Part Information

Harness Type: Chassis
OEM Connector: 33102981
Service Connector: 19329471
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119772	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
II	19301775	J-35616-40 (BU)	J-38125-556	Not Available	Not Available	Not Available	Not Available
III	19301776	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

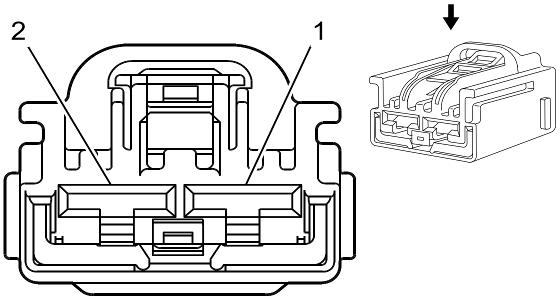
K38A Chassis Control Module - Auxiliary (JL1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/WH	2040	Battery Positive Voltage	II	—
2 - 12	—	—	—	Not Occupied	—	—
13	0.75	BK	1750	Ground	II	—
14	0.5	VT/YE	5985	Accessory Wakeup Serial Data	III	—
15	—	—	—	Not Occupied	—	—
16	0.5	BU/RD	7632	Integrated Trailer Brake Controller Switch 5V Reference	III	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN	7634	Integrated Trailer Brake Controller Redundant Manual Apply Signal	III	—
19	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	III	—
20	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	III	—
21	0.5	GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	III	—
22	0.5	YE/BK	2224	Trailer Brake Enable Signal	III	—
23	0.5	WH/BK	2223	Trailer Brake Control Signal	III	—
24	—	—	—	Not Occupied	—	—

K38A Chassis Control Module - Auxiliary (JL1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.75	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
26	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
27	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
28	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
29	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
30	0.5	GN/VT	4114	Local Interconnect Network Serial Data Bus 14	III	—
31 - 38	—	—	—	Not Occupied	—	—

K40 Seat Memory Control Module X1



1817814

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7283-6458-40
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 6.3 Series (L-GY)

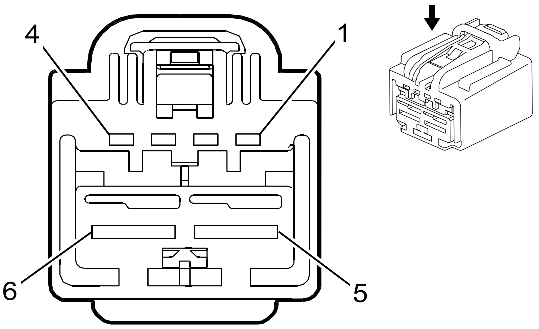
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K40 Seat Memory Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/BN	1140	Battery Positive Voltage	I	—
2	2.5	RD/YE	5040	Battery Positive Voltage	I	—

K40 Seat Memory Control Module X2



1798802

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7283-9749-30
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F YESC Kaizen Series (BK)

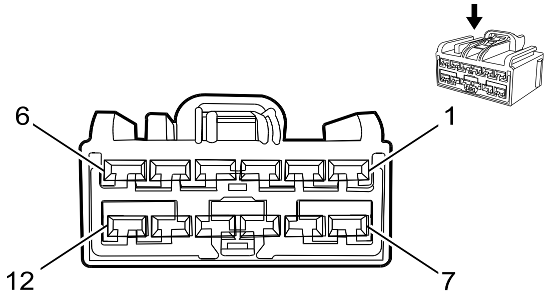
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K40 Seat Memory Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GN/WH	7530	Local Interconnect Network Serial Data Bus 8	I	—
4	—	—	—	Not Occupied	—	—
5	2.5	BK	1150	Ground	II	—
6	—	—	—	Not Occupied	—	—

K40 Seat Memory Control Module X3



2231648

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7283-6467-40
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 2.8 Kaizen Series (L-GY)

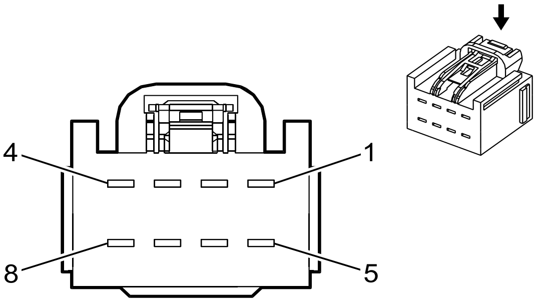
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K40 Seat Memory Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/YE	276	Driver Power Seat Recline Motor Forward Control	I	—
2	1.5	BU/YE	277	Driver Power Seat Recline Motor Rearward Control	I	—
3	1.5	GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	—
4	1.5	BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	—
5	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	—
6	1.5	GY/BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	—
7	1.5	YE/BN	768	Driver Power Seat Lumbar Motor Up Control	I	—
8	1.5	YE/BU	767	Driver Power Seat Lumbar Motor Down Control	I	—
9	1.5	BU	611	Driver Power Seat Lumbar Motor Forward Control	I	—
10	1.5	VT	610	Driver Power Seat Lumbar Motor Rearward Control	I	—
11	1.5	YE/BU	285	Driver Power Seat Horizontal Motor Forward Control	I	—
12	1.5	GY/GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	—

K40 Seat Memory Control Module X4



2832199

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7283-3243-40
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (L-GY)

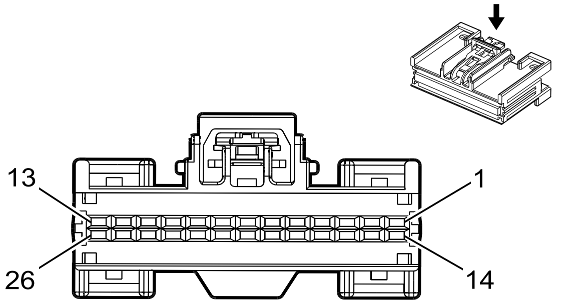
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K40 Seat Memory Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/VT	5130	Adjustable Pedal Actuator Forward Control	I	—
2	1.5	YE	5129	Adjustable Pedal Actuator Rearward Control	I	—
3 - 8	—	—	—	Not Occupied	—	—

K40 Seat Memory Control Module X5



2916473

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7287-2043-30
Service Connector: Service by Harness - See Part Catalog
Description: 26-Way F 0.64 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

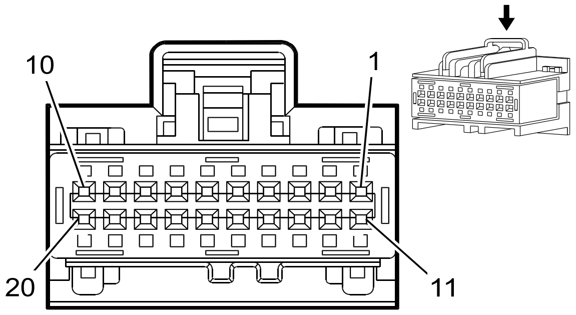
K40 Seat Memory Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	3298	Memory Sensor High Reference 2	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BN	3038	Right Rear Haptic Seat Motor Control	I	—
5	0.5	YE/BN	3037	Left Rear Haptic Seat Motor Control	I	—
6	0.5	BK/GY	6206	Memory Sensor Low Reference	I	—
7	0.5	YE/BN	1522	Power Seat Horizontal Forward Switch Signal	I	—
8	0.5	GY/GN	1523	Power Seat Horizontal Rearward Switch Signal	I	—
9	0.5	GN/BN	1518	Power Seat Front Vertical Up Switch Signal	I	—
10	0.5	BU/VT	1520	Power Seat Front Vertical Down Switch Signal	I	—
11	0.5	GN	569	Memory Seat Horizontal Motor Position Sensor Signal	I	—
12	0.5	BN/WH	557	Memory Seat Front Vertical Motor Position Sensor Signal	I	—
13	0.5	WH/RD	6207	Memory Sensor High Reference	I	—
14	0.5	YE	1065	Driver Seat Lumbar Forward Switch Signal	I	—
15	0.5	BU/VT	1064	Driver Seat Lumbar Rearward Switch Signal	I	—
16	0.5	WH	1066	Driver Seat Lumbar Up Switch Signal	I	—
17	0.5	YE/BK	1067	Driver Seat Lumbar Down Switch Signal	I	—
18	—	—	—	Not Occupied	—	—
19	0.5	YE	1519	Power Seat Rear Vertical Up Switch Signal	I	—
20	0.5	YE/BU	1521	Power Seat Rear Vertical Down Switch Signal	I	—

K40 Seat Memory Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.5	GY/BK	1269	Power Seat Recline Forward Switch Signal	I	—
22	0.5	GN/GY	1270	Power Seat Recline Rearward Switch Signal	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	YE/BU	568	Memory Seat Rear Vertical Motor Position Sensor Signal	I	—
26	0.5	WH/BK	570	Driver Memory Seat Recline Motor Position Sensor Signal	I	—

K40 Seat Memory Control Module X6



1664552

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 31410-1201
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 64 Series, Sealed (GY)

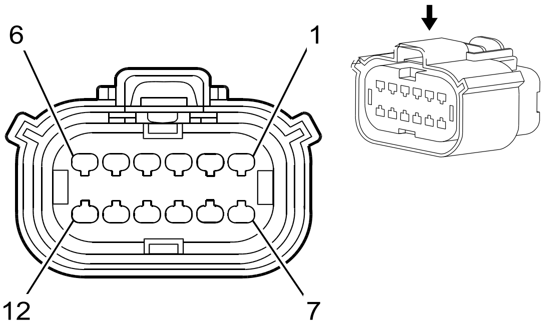
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K40 Seat Memory Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.35	BU	5952	Adjustable Pedal Position Sensor Brake Signal	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GN/GY	5286	Adjustable Pedal Switch Forward Signal	I	—
7	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	I	—
8 - 10	—	—	—	Not Occupied	—	—
11	0.35	BK/BU	5978	Memory Switch Low Reference	I	—
12	0.35	WH	615	Memory Seat Switch Signal 1	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.35	GN/BU	614	Memory Seat Switch Set Signal	I	—
16 - 20	—	—	—	Not Occupied	—	—

K43 Power Steering Control Module X1 (NV8)



1825165

Connector Part Information

Harness Type: Chassis
OEM Connector: 13595088
Service Connector: 19150019
Description: 12-Way F 1.5 Series, Sealed (BK)

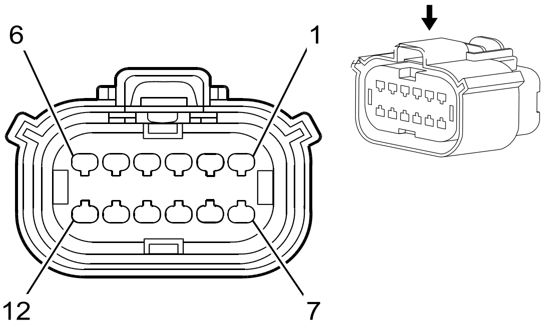
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K43 Power Steering Control Module X1 (NV8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
2	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
3	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
4	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
5	0.5	RD/WH	2740	Battery Positive Voltage	II	—
6	—	—	—	Not Occupied	—	—
7	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
8	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
9	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
10	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
11	0.75	BK	2150	Ground	I	—
12	0.5	WH/BU	5986	Serial Data Communication Enable	II	—

K43 Power Steering Control Module X1 (-NV8)



1825165

Connector Part Information

Harness Type: Chassis
OEM Connector: 13595088
Service Connector: 19150019
Description: 12-Way F 1.5 Series, Sealed (BK)

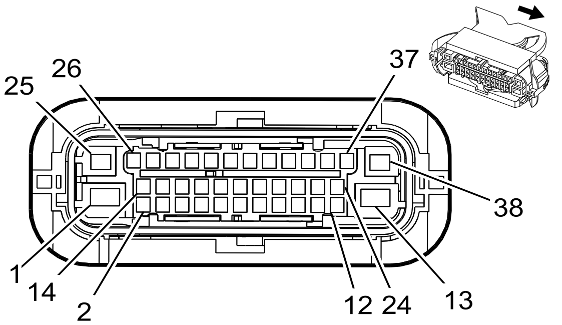
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K43 Power Steering Control Module X1 (-NV8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
2	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
3	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
4	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
5	0.5	RD/WH	2740	Battery Positive Voltage	II	—
6	—	—	—	Not Occupied	—	—
7	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
8	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
9	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
10	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
11	0.75	BK	2150	Ground	I	—
12	0.5	WH/BU	5986	Serial Data Communication Enable	II	—

K44 Power Take-Off Control Module X1



3240110

Connector Part Information

Harness Type: Engine
OEM Connector: 15498534
Service Connector: 19329924
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK)

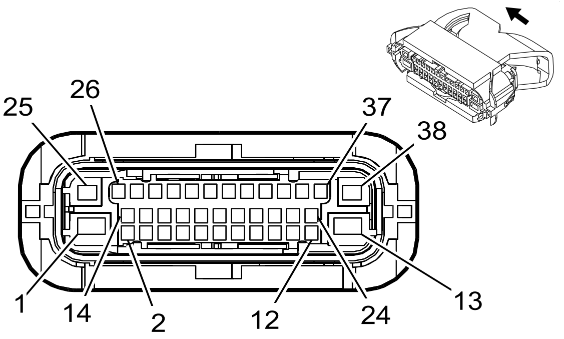
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13582180	J-35616-14 (GN)	J-38125-560	1241374-1	Lear 17	E	2
II	19119772	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
III	19301757	J-35616-40 (BU)	J-38125-556	1241408-1	Lear 28	C	A
IV	19301775	J-35616-40 (BU)	J-38125-556	Not Available	Not Available	Not Available	Not Available

K44 Power Take-Off Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/BU	4540	Battery Positive Voltage	IV	—
2 - 12	—	—	—	Not Occupied	—	—
13	1.5	BK/WH	451	Signal Ground	III	—
14	0.5	WH/BU	5986	Serial Data Communication Enable	I	—
15	0.5	GN/WH	488	Power Take Off Control Switch	I	—
16 - 17	—	—	—	Not Occupied	—	—
18	0.5	BN/GN	4311	Power Take Off Enable In Cab Switch Normally Closed Signal	I	—
19 - 24	—	—	—	Not Occupied	—	—
25	0.75	BN/WH	6085	Power Take Off Remote Engine Start Switch Signal	II	—
26	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
27	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
28	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
29	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
30 - 38	—	—	—	Not Occupied	—	—

K44 Power Take-Off Control Module X2



3638282

Connector Part Information

Harness Type: Engine
OEM Connector: 13655518
Service Connector: 19303771
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK with BN Inner Connector)

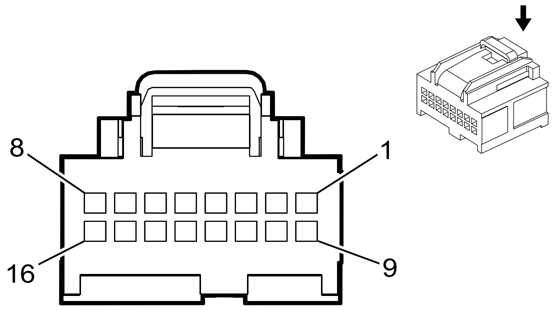
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19301776	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K44 Power Take-Off Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 7	—	—	—	Not Occupied	—	—
8	0.75	YE	2522	Power Take Off Status Signal	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.5	VT/BU	2562	Power Take Off Relay Coil Control	I	—
12 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH/GN	6142	Power Take Off Engine Shutdown Signal	I	—
29 - 34	—	—	—	Not Occupied	—	—
35	0.5	BU/GY	6089	Power Take Off Remote Switch Set Signal 1	I	—
36	0.75	BU/BN	4408	Power Take Off Enable Signal	I	—
37	0.75	BN	6381	Power Take Off Relay Engage Signal	I	—
38	—	—	—	Not Occupied	—	—

K56 Serial Data Gateway Module X1



3240102

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33104224
Service Connector: 13594065
Description: 16-Way F 0.64 OCS Series (BK)

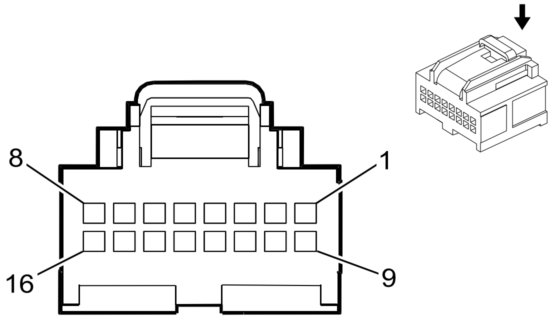
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300660	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K56 Serial Data Gateway Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/VT	3340	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
4	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
5	—	—	—	Not Occupied	—	—
6	0.75 0.35	BK/WH BK/WH	1851 1851	Signal Ground Signal Ground	I I	E29 -E29
7	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
8	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
11	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
12	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
13	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
14	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
15	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—

K56 Serial Data Gateway Module X2



4223153

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33104225
Service Connector: 13594066
Description: 16-Way F 0.64 OCS Series (GY)

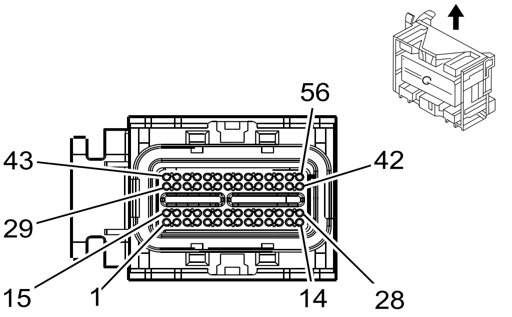
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300660	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K56 Serial Data Gateway Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
2	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
3	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
4	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
5	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
6	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
7	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
8	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
14	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
15	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
16	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—

K59 Starter/Generator Control Module X1



784851

Connector Part Information

Harness Type: Engine
OEM Connector: 13510837
Service Connector: 88988373
Description: 56-Way F 0.64 Series, Sealed (BU with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available

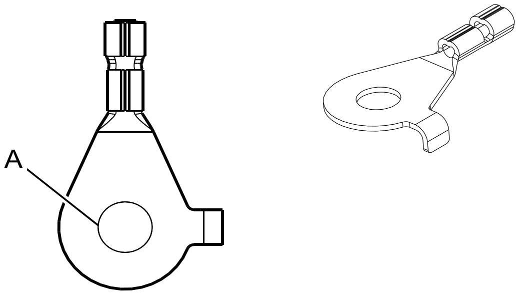
K59 Starter/Generator Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
2	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
3	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
4	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
5	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
6	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
7	0.75	BU	7645	Traction Power Inverter Module Resolver 1 Excitation Signal Positive	I	—
8	0.75	WH/GN	7648	Traction Power Inverter Module Traction Power Inverter Module Resolver 1 Excitation Signal Negative	I	—
9	0.75	BN	7652	Traction Power Inverter Module Resolver 1 S3 Signal	I	—
10	0.75	YE	7649	Traction Power Inverter Module Resolver 1 S1 Signal	I	—
11	0.75	VT/GN	7647	Transmission Traction Power Inverter Module Resolver 1 S2 Signal	I	—
12	0.75	GY	7646	Transmission Traction Power Inverter Module Resolver 1 S4 Signal	I	—
13 - 16	—	—	—	Not Occupied	—	—
17	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
18	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
19	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—

K59 Starter/Generator Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
21 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH	5359	Brake Apply Sensor Control	I	—
29 - 38	—	—	—	Not Occupied	—	—
39	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	I	—
40	0.5	BK/GY	3872	Powertrain Electronics Cooling Loop (PECL) Temperature Sensor Low Reference	I	—
41	—	—	—	Not Occupied	—	—
42	0.5	WH/BN	3768	MGU Coolant Pump Relay Control	I	—
43 - 48	—	—	—	Not Occupied	—	—
49	0.5	VT/BU	3790	Electric Coolant Motor Feedback Signal	I	—
50 - 52	—	—	—	Not Occupied	—	—
53	0.5	BU/YE	5361	Brake Apply Sensor Signal	I	—
54	0.5	GY/VT	3873	Powertrain Electronics Cooling Loop (PECL) Temperature Sensor Signal	I	—
55	—	—	—	Not Occupied	—	—
56	0.5	WH/GY	4578	Surge Accumulator Solenoid Low Side Control	I	—

K59 Starter/Generator Control Module X4



Connector Part Information

Harness Type: Engine
OEM Connector: 33198692
Service Connector:
Description: 1-Way Ring Terminal

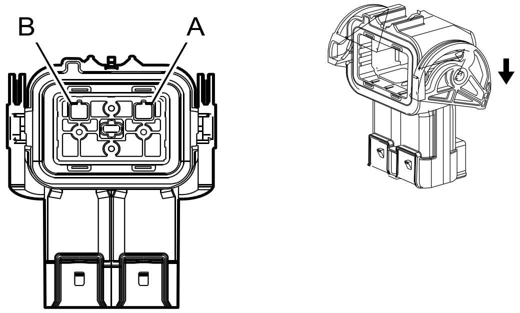
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

K59 Starter/Generator Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BK	813	Low Reference	I	—

K59 Starter/Generator Control Module X5



4280579

Connector Part Information

Harness Type: High Voltage Body
OEM Connector: 33199304
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Power Pack 1000 Series, Sealed (OG)

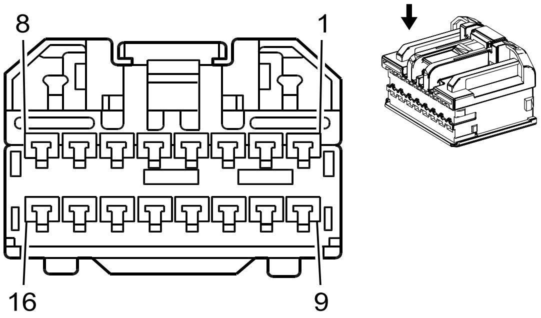
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

K59 Starter/Generator Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	12	OG	5084	High Voltage Battery (+)	I	—
B	12	OG	5083	High Voltage Battery (-)	I	—

K69 Transfer Case Control Module X1 (NQH/NQF)



1866235

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 13547237
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 Series (GY)

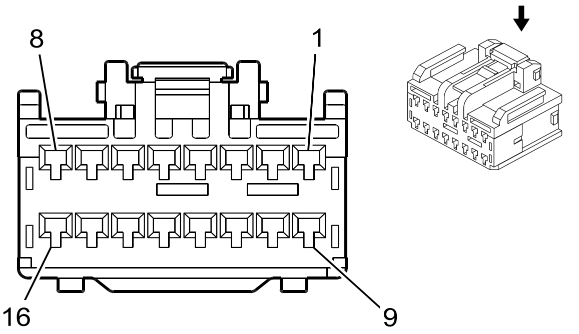
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K69 Transfer Case Control Module X1 (NQH/NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BK	7478	Rotary Position Sensor Low Reference	I	—
2	0.5	WH/GN	7479	Rotary Position Sensor Signal	I	—
3	0.35	YE	7474	Incremental Encoder Direction Signal	I	—
4	0.5	GY/BK	1570	Front Axle Actuator Control	I	—
5	0.35	BU/GY	7473	Incremental Encoder Impulse Signal	I	—
6	0.35	GY/RD	6029	Four Wheel Drive Mode Switch 5V Reference	I	—
7	0.35	BU/YE	1693	Four Wheel Drive Switch Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	WH/RD	7477	Rotary Position Sensor 5V Reference	I	—
10	0.35	WH/GN	7475	Incremental Encoder Sensor 8V Reference	I	—
11	0.35	VT	7476	Incremental Encoder Sensor Low Reference	I	—
12	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	I	—
13	1	YE/BN	1569	Transfer Case Lock Solenoid Control	I	—
14 - 16	—	—	—	Not Occupied	—	—

K69 Transfer Case Control Module X2 (NQH/NQF)



1653404

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15489823
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 Series (BK)

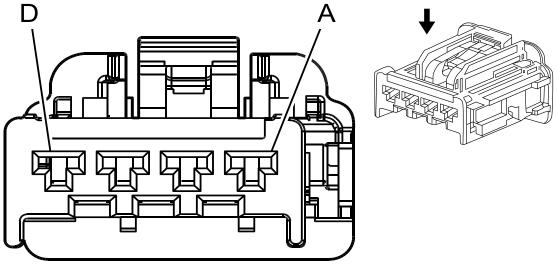
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K69 Transfer Case Control Module X2 (NQH/NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	VT/WH	1565	4 LO Indicator Control	I	—
4	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	VT/YE	5985	Accessory Wakeup Serial Data	I	—
7	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
8	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	GY/GN	1561	AWD Indicator Control	I	—
12	0.35	BN	1560	Neutral Indicator Control	I	—
13	0.35	GN/BK	1563	2 HI Indicator Control	I	—
14	0.35	BN/BK	1566	4 HI Indicator Control	I	—
15	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
16	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—

K69 Transfer Case Control Module X3 (NQH/NQF)



1866237

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 15466671
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 GT Series (L-GY)

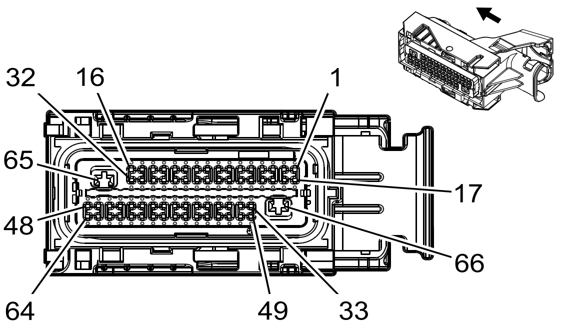
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K69 Transfer Case Control Module X3 (NQH/NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	4	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	I	—
B	4	YE/GY	1552	Transfer Case Motor Clockwise Control	I	—
C	3	RD/GY	1342	Battery Positive Voltage	I	—
D	3	BK	550	Ground	I	—

K71 Transmission Control Module



3621452

Connector Part Information

Harness Type: Engine
OEM Connector: 13965710
Service Connector: 19329822
Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13576375	J-35616-35 (VT)	J-38125-12A	1326030-8	Lear 17	A	4
III	13579770	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

K71 Transmission Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	4507	Transmission Clutch H Control	I	—
2	0.75 0.5	BU BU	6401 6401	Clutch B Control Clutch B Control	I I	LTC T87
3	0.5	GY/GN	6403	Clutch D Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5 0.75	YE/GN YE/GN	4170 4170	Transmission Position Sensor B 9V Reference Transmission Position Sensor B 9V Reference	I I	M5U/M5X -NQF-NQG
8	0.5 0.75	YE/BU YE/BU	4171 4171	Transmission Position Sensor A 9V Reference Transmission Position Sensor A 9V Reference	I I	M5U/M5X -M5U/-M5X
9	0.75	WH/BN	1226	Transmission Fluid Pressure Switch Signal Bit 3	I	—
10	0.75	GN/BK	2529	Transmission Fluid Pressure Switch Signal Bit 4	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	I	—
14	0.5 0.75	GY/BU GY/BU	6358 6358	Output Speed Signal Output Speed Signal	I I	M5U/M5X -NQF-NQG
15	0.75 0.5	GN/YE GN/YE	6353 6353	Input Speed Signal Input Speed Signal	I I	LCT M5U/M5X
16	—	—	—	Not Occupied	—	—

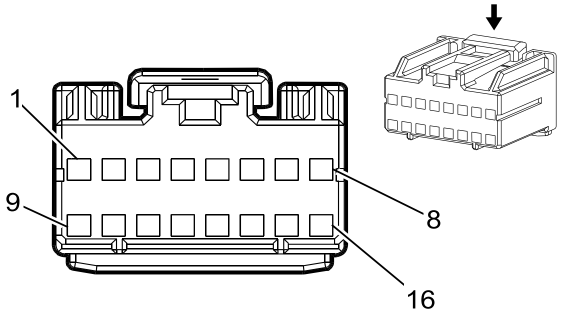
K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
17	0.75 0.5	WH WH	4508 4508	Transmission Clutch G Control Transmission Clutch G Control	I I	LCT M5U/M5X
18	0.75 0.5	BN BN	6400 6400	Clutch A Control Clutch A Control	I I	LCT M5U/M5X
19	0.5 0.75	GY GY	6402 6402	Clutch C Control Clutch C Control	I I	M5U/M5X MW7
20	0.5	YE/BN	6404	Clutch E Control	I	—
21	0.5 0.75	GN/WH WH/BN	6380 2527	TCC On/Off Solenoid A Control Shift Solenoid Control 5	I I	M5U/M5X MW7
22	0.5	YE/BN	6210	TCC On/Off Solenoid B Control	I	—
23	0.75	WH/GN	1222	1 Shift Solenoid Valve Control	I	—
24	0.75	YE/BK	1223	2 Shift Solenoid Valve Control	I	—
25	0.5	BK/GY	3927	IMS Mode Switch Low Reference	I	—
26	0.5	WH/BK	5983	PRNDL C Signal	I	—
27	0.5	VT/WH	5981	PRNDL A Signal	I	—
28	0.75 0.5	BK/BN BK/BN	586 586	Transmission Oil Temperature Sensor Low Reference Transmission Oil Temperature Sensor Low Reference	I I	LCT M5U/M5X
29 - 32	—	—	—	Not Occupied	—	—
33	0.75	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
36	0.75	GN/VT	1225	Transmission Fluid Pressure Switch Signal Bit 2	I	—
37	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
38	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
39 - 46	—	—	—	Not Occupied	—	—
47	0.5	GY/YE	4169	PRNDL S Signal	I	—
48	—	—	—	Not Occupied	—	—
49	0.75	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
52	0.75	VT/GY	1224	Transmission Fluid Pressure Switch Signal Bit 1	I	—
53	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
54	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
55	0.5	GY/WH	4168	PRNDL P Signal	I	—
56 - 57	—	—	—	Not Occupied	—	—
58	0.5	GY/BN	5982	PRNDL B Signal	I	—
59	0.5	GY/WH	4168	PRNDL P Signal	I	—
60	0.5	WH/BK	5983	PRNDL C Signal	I	—
61	0.5	GY/BN	5982	PRNDL B Signal	I	—
62	0.5	VT/WH	5981	PRNDL A Signal	I	—
63	0.75 0.5	BN/WH BN/WH	585 585	Transmission Oil Temperature Sensor Signal Transmission Oil Temperature Sensor Signal	I I	LTC M5U/M5X
64	—	—	—	Not Occupied	—	—
65	1.5 1.5	BK/WH BK/WH	451 451	Signal Ground Signal Ground	III II	— —

K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
66	1.5	RD/GN	1840	Battery Positive Voltage	III	—
	1.5	RD/GN	1840	Battery Positive Voltage	II	—

K73 Telematics Communication Interface Control Module X1



1471689

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431362
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series (NA)

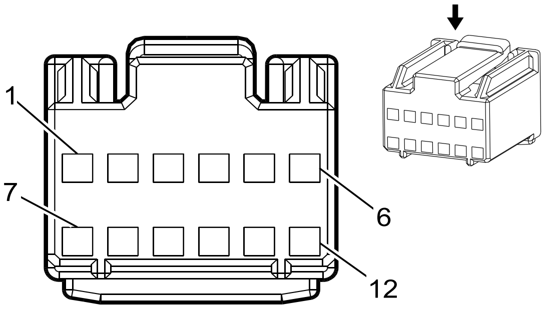
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575548	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J

K73 Telematics Communication Interface Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
2	0.35	BN/WH	2517	Keypad Red LED Control	I	—
3	0.35	YE/VT	2516	Keypad Green LED Control	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.35	GN/BK	2515	Keypad Control	I	—
7	0.35	BK	2550	Ground	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
11	0.35	GN/WH	2514	Keypad Signal	I	—
12	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.35	RD/BU	3240	Battery Positive Voltage	I	—
16	—	—	—	Not Occupied	—	—

K73 Telematics Communication Interface Control Module X2



1471691

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431365
Service Connector: 88952886
Description: 12-Way F 100A Micro-Pack Series (NA)

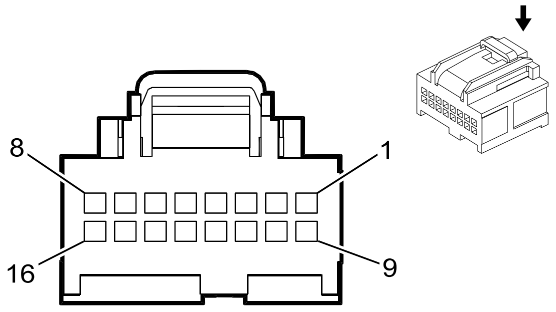
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575548	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J

K73 Telematics Communication Interface Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	658	Cellular Telephone Voice Signal	I	—
2	0.35	BK/YE	659	Cellular Telephone Voice Low Reference	I	—
3	0.5	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
4	0.5	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
5	0.5	Bare	1792	Low Reference	I	—
6	0.35	GY/YE	5149	Voice Recognition Audio Signal	I	—
7	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
8	0.35	Bare	1782	Low Reference	I	—
9	0.35	BU	655	Cellular Telephone Microphone Signal	I	—
10	0.35	BK/BN	654	Cellular Telephone Microphone Low Reference	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	BK/GY	5152	Voice Recognition Audio Low Reference	I	—

K74 Human Machine Interface Control Module X1



3240102

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13819409
Service Connector: 13582576
Description: 16-Way F 0.64 OCS Series (BK)

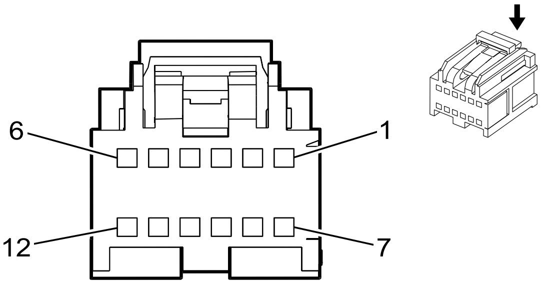
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300660	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K74 Human Machine Interface Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35 0.35	GY/YE BU	5149 655	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	I I	UE1 -UE1
2	0.35 0.35	BK/GY BK/BN	5152 654	Voice Recognition Audio Low Reference Cellular Telephone Microphone Low Reference	I I	UE1 -UE1
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	RD/VT	340	Battery Positive Voltage	I	—
8	0.75	BK	2550	Ground	I	—
9	0.5	GN/WH	7527	Local Interconnect Network Serial Data Bus 5	I	—
10	—	—	—	Not Occupied	—	—
11	0.35 0.5	BU/GN BU/GN	1304 1304	High Speed GMLAN Serial Data (+)9 High Speed GMLAN Serial Data (+)9	I I	— —
12	0.35 0.5	WH/GN WH/GN	1305 1305	High Speed GMLAN Serial Data (-)9 High Speed GMLAN Serial Data (-)9	I I	— —
13	0.5	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
14	0.5	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
15 - 16	—	—	—	Not Occupied	—	—

K74 Human Machine Interface Control Module X2



3240099

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13782626
Service Connector: 19329259
Description: 12-Way F 0.64 OCS Series (GY)

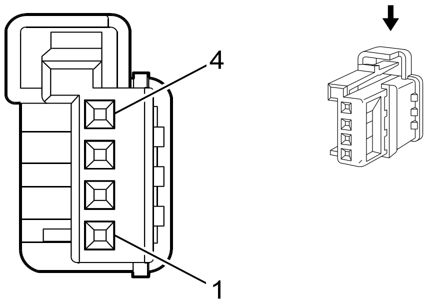
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300660	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K74 Human Machine Interface Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	3999	MOST Control	I	—
2	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
3	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GY/YE	6972	Camera Signal 2 +	I	—
6	0.35	WH/BU	6973	Camera Signal 2	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
9	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
10 - 12	—	—	—	Not Occupied	—	—

K77 Remote Control Door Lock Receiver



2179793

Connector Part Information

Harness Type: Body
OEM Connector: 10768790
Service Connector: 13584096
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

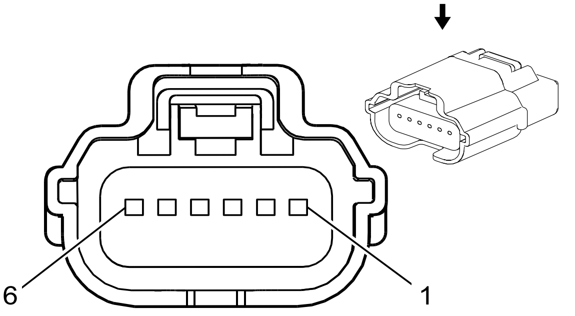
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K77 Remote Control Door Lock Receiver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	3273	Remote Function Actuator Low Reference	I	—
2	0.35	YE/GN	3274	Remote Function Actuator Transmit Signal	I	—
3	0.35	BU/WH	3275	Remote Function Actuator Receive Signal	I	—
4	0.35	GY/WH	3272	Remote Function Actuator Control	I	—

K85 Passenger Presence Module



1974974

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 31404-6132
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (BK)

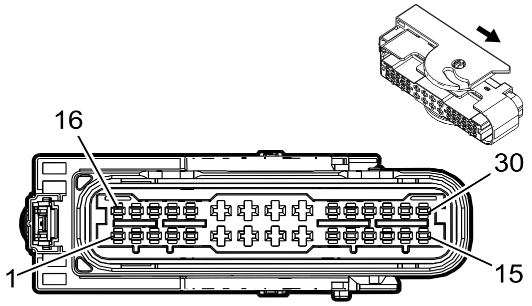
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K85 Passenger Presence Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GN	4440	Battery Positive Voltage	I	—
2	0.5 0.35	GN GN	5060 5060	Low Speed GMLAN Serial Data Low Speed GMLAN Serial Data	I I	— AL0-ULT
3	—	—	—	Not Occupied	—	—
4	0.35	BK/WH	2751	Signal Ground	I	—
5	0.35	BU/RD	5612	Passenger Seat Belt Tension Sensor 5V Reference	I	—
6	0.35	VT/OG	5611	Passenger Seat Belt Tension Sensor Signal	I	—

K111 Fuel Pump Driver Control Module (L5P)



3240109

Connector Part Information

Harness Type: Chassis
OEM Connector: 13888308
Service Connector: 19354086
Description: 30-Way F 1.5, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300440	J-35616-35 (VT)	J-38125-557	Not Available	Not Available	Not Available	Not Available
II	19329958	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

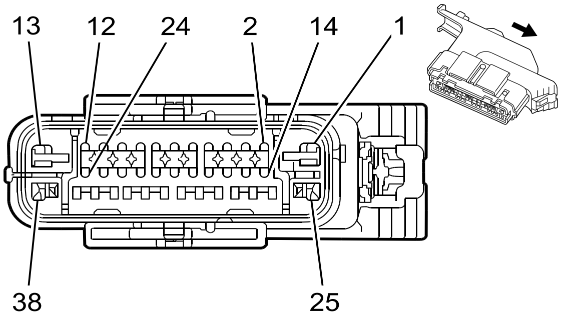
K111 Fuel Pump Driver Control Module (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.5	BN/VT	455	Fuel Filter Temperature Signal	II	—
5	0.5	BU/YE	6861	Water In Fuel Sensor Signal	II	—
6	—	—	—	Not Occupied	—	—
7	2.5	RD/VT	1940	Battery Positive Voltage	I	—
8	2.5	GY	120	Fuel Pump Control	I	—
9	2.5	YE/GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	II	—
14	0.5	BU/WH	1937	Secondary Fuel Level Sensor Signal	II	—
15	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	II	—
16	0.5	VT/BU	3674	NOx Sensor 1 Control	II	—
17	0.75	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—
18	0.5	GN/GY	465	Fuel Pump Primary Relay Control	II	—
19	0.5	BK/VT	412	Fuel Filter Temperature Sensor Low Reference	II	—
20 - 21	—	—	—	Not Occupied	—	—
22	2.5	BK	2150	Ground	I	—
23	0.5	BK	7444	Fuel System Control Module Shield Ground	I	—
24	2.5	WH/BN	4138	Fuel Pump Supply Voltage Phase 3	I	—

K111 Fuel Pump Driver Control Module (L5P) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.5	BK/BU	6863	Water In Fuel Sensor Low Reference	II	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	II	—
29	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	II	—
30	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	II	—

K111 Fuel Pump Driver Control Module (L96/LC8)



1862109

Connector Part Information

Harness Type: Chassis
OEM Connector: 13518748
Service Connector: 19178089
Description: 38-Way F 0.64, 2.8 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575408	J-35616-4A (PU)	J-38125-553	Not Available	Not Available	Not Available	Not Available
II	13576407	J-35616-4A (PU)	J-38125-553	15304720	Delphi 19	4	5
III	13579766	J-35616-64B (LT BU)	J-38125-215A	SAITS-A03T-M064	Yazaki 14	9	9
IV	13579774	J-35616-64B (LT BU)	J-38125-215A	SAITS-A03T-M064	Yazaki 14	9	9

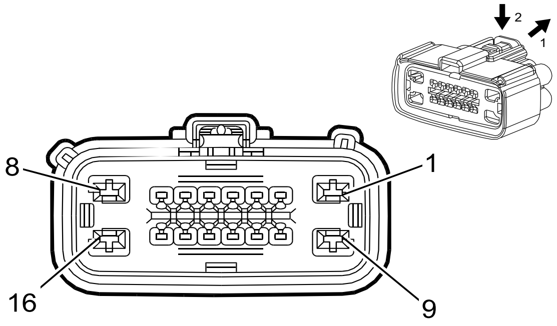
K111 Fuel Pump Driver Control Module (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/VT	1940	Battery Positive Voltage	II	—
2 - 4	—	—	—	Not Occupied	—	—
5	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	IV	—
6	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	IV	—
7	—	—	—	Not Occupied	—	—
8	0.5	VT/YE	5985	Accessory Wakeup Serial Data	IV	—
9	—	—	—	Not Occupied	—	—
10	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	IV	—
11 - 12	—	—	—	Not Occupied	—	—
13	2.5	GY	120	Fuel Pump Control	I	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	IV	—
18	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	IV	—
19	—	—	—	Not Occupied	—	—
20	0.5	GN/GY	465	Fuel Pump Primary Relay Control	IV	—
21	0.75	VT/GN	439	Run/Crank Ignition 1 Voltage	III	—

K111 Fuel Pump Driver Control Module (L96/LC8) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	IV	—
23	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	IV	—
24	0.5	BU	7444	Fuel System Control Module Shield Ground	IV	—
25	2.5	BK	2150	Ground	I	—
26 - 37	—	—	—	Not Occupied	—	—
38	2.5	BK/GN	1580	Fuel Pump Low Reference	I	—

K111 Fuel Pump Driver Control Module (LV3/L83/L86/L8B)



4341043

Connector Part Information

Harness Type: Chassis
OEM Connector: 33233355
Service Connector: 13599870
Description: 16-Way F 1.5, 2.8 Series, Sealed (GY)

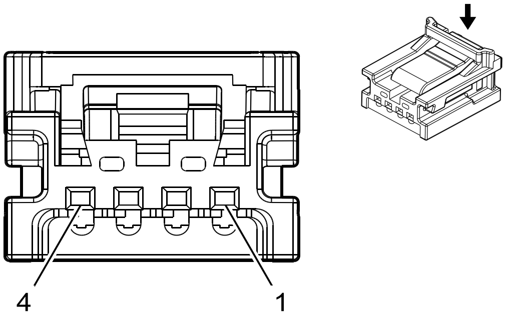
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	13576375	J-35616-35 (VT)	J-38125-12A	1326030-8	Lear 17	4	D
III	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K111 Fuel Pump Driver Control Module (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/VT	1940	Battery Positive Voltage	II	—
2	0.5	GY	5660	Fuel Pump Controller Data Out Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	III	—
5	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	III	—
6	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	III	—
7	0.5	VT/YE	5985	Accessory Wakeup Serial Data	III	—
8	2.5	GY	120	Fuel Pump Control	II	—
9	2.5	BK	2150	Ground	II	—
10 - 14	—	—	—	Not Occupied	—	—
15	0.5	BU	7444	Fuel System Control Module Shield Ground	III	—
16	2.5	BK/GN	1580	Fuel Pump Low Reference	II	—

K112A Hybrid/EV Battery Interface Control Module 1 X1



4215060

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33228283
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F Mini 50 Series (BK)

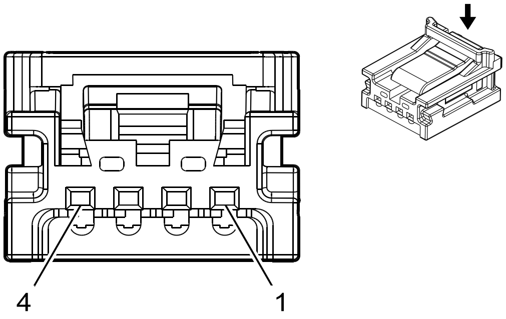
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	EL-35616-58 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K112A Hybrid/EV Battery Interface Control Module 1 X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN	1726	Battery Cell Sensing Serial Data (-) 3	I	—
2	0.35	WH/GN	1725	Battery Cell Sensing Serial Data (+) 3	I	—
3	0.35	VT	1759	Battery Cell Sensing Serial Data (-) 4	I	—
4	0.35	WH/VT	1758	Battery Cell Sensing Serial Data (+) 4	I	—

K112A Hybrid/EV Battery Interface Control Module 1 X2



4215095

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33228285
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F Mini 50 Series (GY)

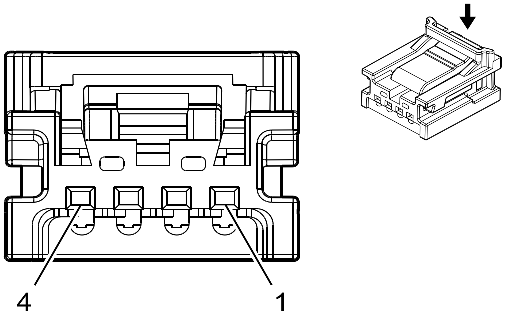
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	EL-35616-58 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K112A Hybrid/EV Battery Interface Control Module 1 X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU	1626	Battery Cell Sensing Serial Data (-) 2	I	—
2	0.35	WH/BU	1625	Battery Cell Sensing Serial Data (+) 2	I	—
3	0.35	WH	1511	Battery Cell Sensing Serial Data (-) 1	I	—
4	0.35	WH/BN	1510	Battery Cell Sensing Serial Data (+) 1	I	—

K112B Hybrid/EV Battery Interface Control Module 2 X1



4215060

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33228283
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F Mini 50 Series (BK)

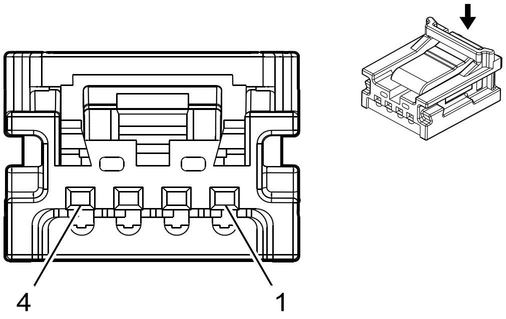
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	EL-35616-58 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K112B Hybrid/EV Battery Interface Control Module 2 X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	1511	Battery Cell Sensing Serial Data (-) 1	I	—
2	0.35	WH/BN	1510	Battery Cell Sensing Serial Data (+) 1	I	—
3	0.35	WH	1511	Battery Cell Sensing Serial Data (-) 1	I	—
4	0.35	WH/BN	1510	Battery Cell Sensing Serial Data (+) 1	I	—

K112B Hybrid/EV Battery Interface Control Module 2 X2



4215095

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33228285
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F Mini 50 Series (GY)

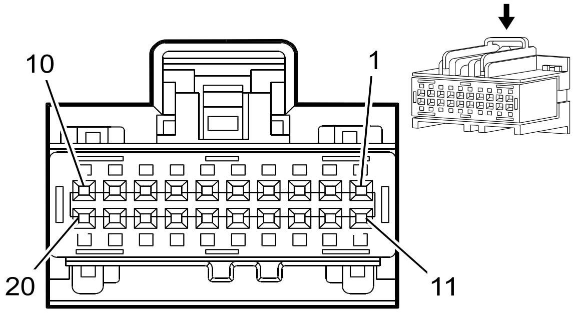
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	EL-35616-58 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K112B Hybrid/EV Battery Interface Control Module 2 X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT	1759	Battery Cell Sensing Serial Data (-) 4	I	—
2	0.35	WH/VT	1758	Battery Cell Sensing Serial Data (+) 4	I	—
3	0.35	GN	1726	Battery Cell Sensing Serial Data (-) 3	I	—
4	0.35	WH/GN	1725	Battery Cell Sensing Serial Data (+) 3	I	—

K114B Hybrid/EV Powertrain Control Module 2 X1



1664552

Connector Part Information

Harness Type: Body
OEM Connector: 13950640
Service Connector: 15126709
Description: 20-Way F USCAR 64 Series (BN)

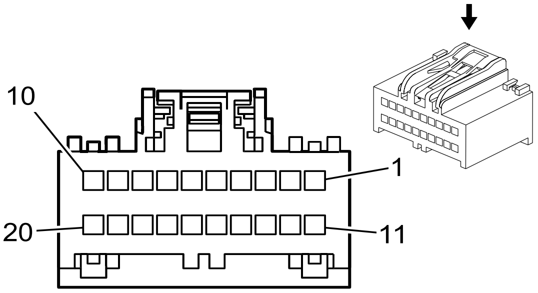
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

K114B Hybrid/EV Powertrain Control Module 2 X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
2	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
3 - 6	—	—	—	Not Occupied	—	—
7	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	YE	5530	Hood Open Switch Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
13	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
14 - 19	—	—	—	Not Occupied	—	—
20	0.35	BU/VT	5599	Fan Speed Signal 2	I	—

K114B Hybrid/EV Powertrain Control Module 2 X2



1715228

Connector Part Information

Harness Type: Body
OEM Connector: 13859758
Service Connector: 15126710
Description: 20-Way F USCAR 64 Series (GY)

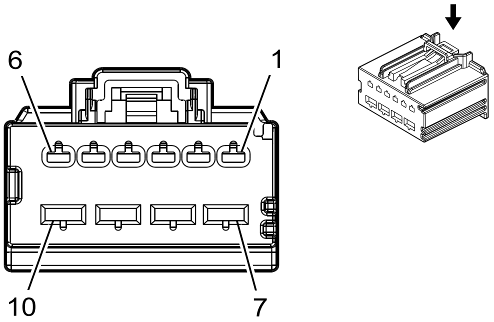
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

K114B Hybrid/EV Powertrain Control Module 2 X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.35	YE/GN	5598	Fan Speed Signal 1	I	—
5 - 8	—	—	—	Not Occupied	—	—
9	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
10 - 20	—	—	—	Not Occupied	—	—

K114B Hybrid/EV Powertrain Control Module 2 X3



3791446

Connector Part Information

Harness Type: Body
OEM Connector: 33175128
Service Connector: 13596102
Description: 10-Way F 1.5, 2.8 Series (BK)

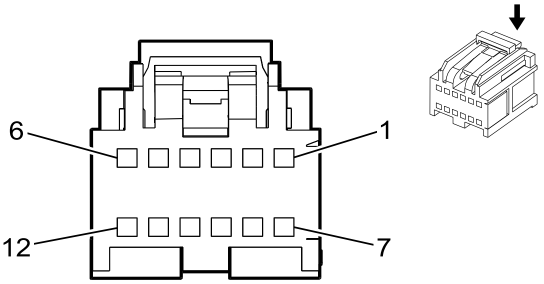
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13580025	J-35616-4A (PU)	J-38125-11A	7116-4111-02	Yazaki 9	C	A
II	13582322	J-35616-4A (PU)	J-38125-11A	7116-4110-02	Yazaki 9	E	C
III	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K114B Hybrid/EV Powertrain Control Module 2 X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
3	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
4	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
5	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
6	—	—	—	Not Occupied	—	—
7	1	BK	1250	Ground	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	VT/YE	5985	Accessory Wakeup Serial Data	II	—
10	0.5	RD/BN	2940	Battery Positive Voltage	II	—

K114B Hybrid/EV Powertrain Control Module 2 X4



3240099

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33104389
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 0.64 OCS Series (GY)

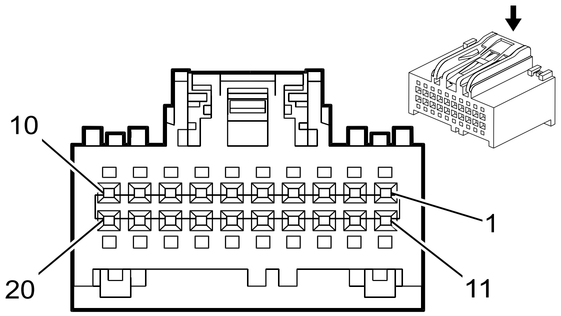
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K114B Hybrid/EV Powertrain Control Module 2 X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/GN	3959	High Voltage Battery 1 (+) Relay Control	I	—
2	0.35	VT/GY	3961	High Voltage Battery (-) Relay Control	I	—
3	0.35	GY	5138	Precharge Relay	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	150	Ground	I	—
8 - 12	—	—	—	Not Occupied	—	—

K114B Hybrid/EV Powertrain Control Module 2 X5



1715223

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33125545
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 64 Series, Sealed (BK)

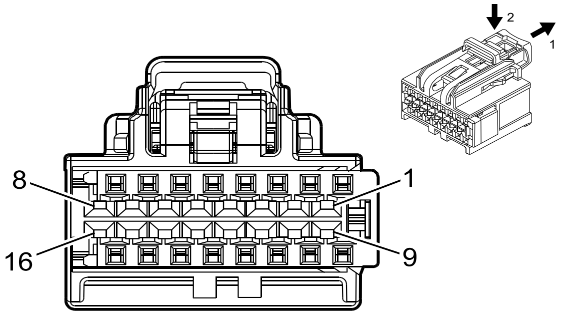
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K114B Hybrid/EV Powertrain Control Module 2 X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	5087	High Voltage Interlock Loop Signal 1	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	BU/YE	2962	High Voltage Battery Current Sensor Course Signal	I	—
5 - 10	—	—	—	Not Occupied	—	—
11	0.5	BK/BN	5088	High Voltage Interlock Loop Low Reference 1	I	—
12	—	—	—	Not Occupied	—	—
13	0.35	VT/RD	2965	High Voltage Battery Current Sensor Voltage Reference	I	—
14	0.35	BK/GY	2963	High Voltage Battery Current Sensor Low Reference	I	—
15 - 20	—	—	—	Not Occupied	—	—

K114B Hybrid/EV Powertrain Control Module 2 X6



4256181

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33104226
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 OCS Series (BN)

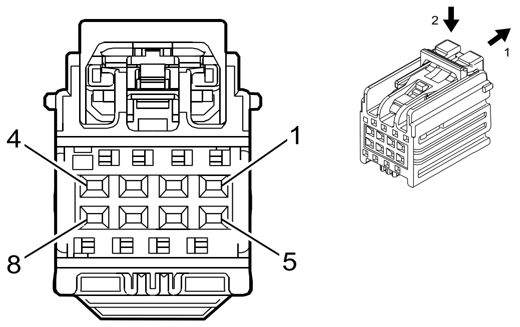
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K114B Hybrid/EV Powertrain Control Module 2 X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	VT	3546	High Voltage Battery Positive Monitor Signal	I	—
3 - 6	—	—	—	Not Occupied	—	—
7	0.5	GY/VT	3548	High Voltage Battery Negative Monitor Signal	I	—
8 - 16	—	—	—	Not Occupied	—	—

K114B Hybrid/EV Powertrain Control Module 2 X7



4280711

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33183559
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F YESC Kaizen Series (GY)

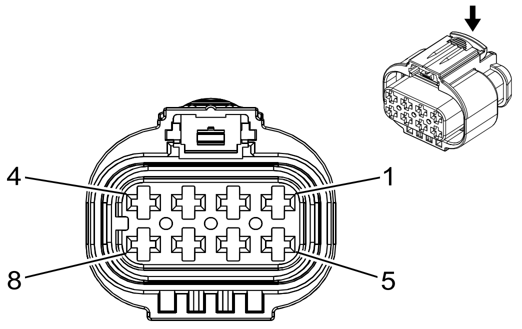
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K114B Hybrid/EV Powertrain Control Module 2 X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	1511	Battery Cell Sensing Serial Data (-) 1	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	BU	1626	Battery Cell Sensing Serial Data (-) 2	I	—
5	0.35	WH/BN	1510	Battery Cell Sensing Serial Data (+) 1	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	WH/BU	1625	Battery Cell Sensing Serial Data (+) 2	I	—

K115 Reductant Control Module X1 (L5P)



3749581

Connector Part Information

Harness Type: Reductant Fluid
OEM Connector: 15530717
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series, Sealed (BK)

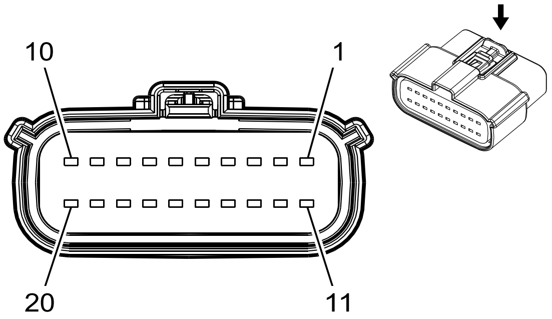
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K115 Reductant Control Module X1 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	3440	Battery Positive Voltage	I	—
2	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
3	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
4	2.5	BK/WH	451	Signal Ground	I	—
5	0.5	VT/GN	4320	Selective Catalytic Reduction Power Module Wake-Up Signal	I	—
6	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
7	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
8	2.5	BU	3921	DEF Heater Supply 1	I	—

K115 Reductant Control Module X2 (L5P)



2871898

Connector Part Information

Harness Type: Reductant Fuel Pump
OEM Connector: 13650143
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 Series, Sealed (BK)

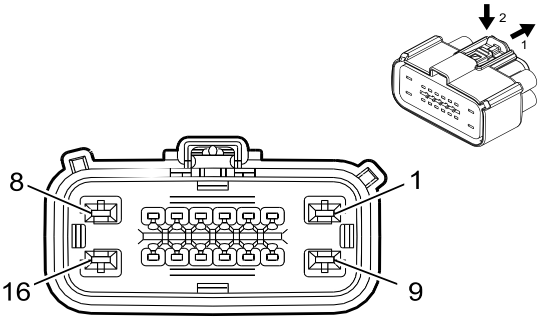
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K115 Reductant Control Module X2 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.0	BN	—	Pump Phase C	I	—
2	1.0	BU	—	Pump Phase B	I	—
3	1.0	WH	—	Pump Phase A	I	—
4	1.0	BK	—	Tank Heater Ground	I	—
5	1.0	BN	—	Pump Ground	I	—
6	0.5	BK	—	Quality Sensor Ground	I	—
7	1.0	BN	—	Line Heater Supply	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	BN	—	Temperature Sensor Signal	I	—
10	0.5	BK	—	Temperature Sensor Ground	I	—
11	1.0	WH	—	Tank Heater Supply	I	—
12	0.5	BN	—	Pressure Sensor Supply	I	—
13	0.5	BU	—	Pressure Sensor Signal	I	—
14	0.5	BN	—	Pressure Sensor Ground	I	—
15	0.5	BK	—	Level Sensor Supply	I	—
16	0.5	BN	—	Level Sensor Signal	I	—
17	0.5	BU	—	Level Sensor Ground	I	—
18	0.5	BN	—	Quality Sent Data	I	—
19	0.5	BU	—	Quality Sensor Supply	I	—
20	1.0	YE	—	Line Heat Ground	I	—

K133 Trailer Brake Power Control Module (JL1)



4624589

Connector Part Information

Harness Type: Chassis
OEM Connector: 33297568
Service Connector: 13599889
Description: 16-Way F 1.5, 2.8 Series, Sealed (GY)

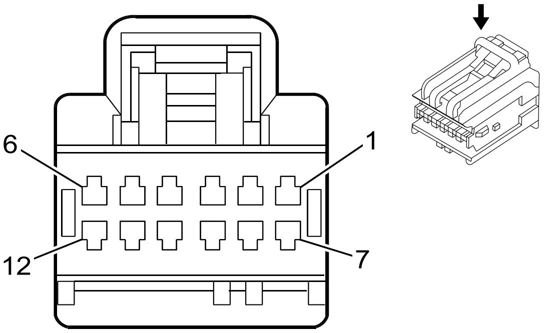
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576375	J-35616-35 (VT)	J-38125-12A	1326030-8	Lear 17	4	D
II	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

K133 Trailer Brake Power Control Module (JL1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/GN	242	Battery Positive Voltage	I	—
2	0.5	WH/BK	2223	Trailer Brake Control Signal	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	YE/BK	2224	Trailer Brake Enable Signal	II	—
6 - 7	—	—	—	Not Occupied	—	—
8	2.5	BU	47	Trailer Auxiliary Control	I	—
9	2.5	BK	1750	Ground	I	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	GN/VT	4114	Local Interconnect Network Serial Data Bus 14	II	—
13 - 16	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X1



1664569

Connector Part Information

Harness Type: Body
OEM Connector: 13551678
Service Connector: 89047364
Description: 12-Way F 0.64 Series (BK)

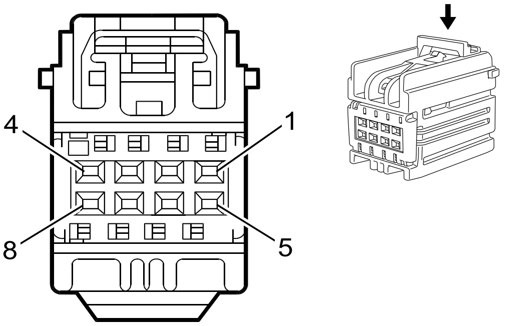
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

K182 Parking Assist Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/GN	3140	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN/BN	5852	Rear Park Assist LED Disable Signal	I	—
4	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.75	BK/WH	2751	Signal Ground	I	—
8	0.35	GY/GN	2555	Rear Park Assist Disable Signal	I	—
9 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X2



1664573

Connector Part Information

Harness Type: Body
OEM Connector: 13551679
Service Connector: 19115653
Description: 8-Way F YESC Kaizen Series (L-GY)

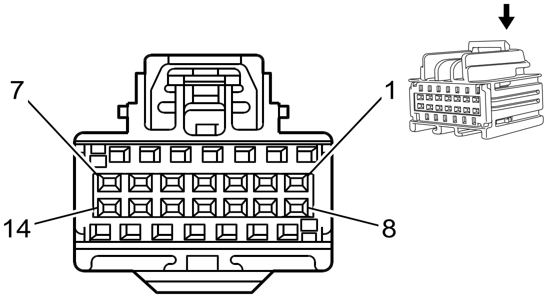
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K182 Parking Assist Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	2375	Left Rear Corner Object Sensor Signal	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	YE/BU	2376	Left Rear Middle Object Sensor Signal	I	—
4	0.35	BN/WH	2374	Object Sensor Control	I	—
5	0.35	YE/VT	2378	Right Rear Corner Object Sensor Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	YE/WH	2377	Right Rear Middle Object Sensor Signal	I	—
8	0.35	BK/GY	2379	Object Sensor Low Reference	I	—

K182 Parking Assist Control Module X3



1664575

Connector Part Information

Harness Type: Body
OEM Connector: 15491263
Service Connector: 15127038
Description: 14-Way F 0.64 Kaizen Series (BU)

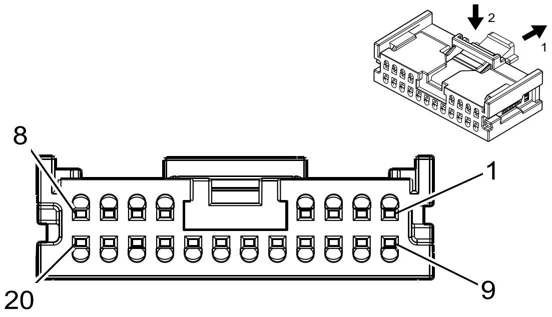
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

K182 Parking Assist Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/VT	5213	Front Parking Left/Right/Mid Sensor	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	VT/WH	5215	Front Parking Left Corner Sensor	I	—
5	0.35	YE/GY	5216	Front Parking Left Mid Sensor	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	BK/BU	5214	Front Parking Sensor Low Reference	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	WH/GY	5217	Front Parking Right Corner Sensor	I	—
12	0.35	VT/GY	5218	Front Parking Right Mid Sensor	I	—
13 - 14	—	—	—	Not Occupied	—	—

K188 Human Machine Interface Control Module Bypass Module X1



4231339

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33273811
Service Connector: 13511020
Description: 20-Way F Mini 50 Series (BK)

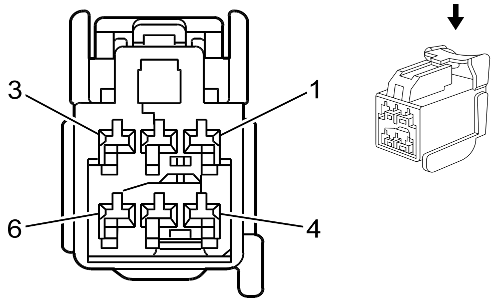
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19333221	EL-35616-58 (BK)	J-38125-553	Not Available	Not Available	Not Available	Not Available

K188 Human Machine Interface Control Module Bypass Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GY	2840	Battery Positive Voltage	I	—
2	0.35	GY/VT	755	RAP Relay Coil Control	I	—
3	0.35 0.35	GN/WH L-GN/WH	7527 7527	Local Interconnect Network Serial Data Bus 5 Local Interconnect Network Serial Data Bus 5	I I	— —
4	—	—	—	Not Occupied	—	—
5	0.35	BK	2550	Ground	I	—
6	0.35	GY/YE	6972	Camera Signal 2 +	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	GY/YE	6972	Camera Signal 2 +	I	—
9	0.35 0.35	GN/WH L-GN/WH	24 24	Backup Lamp Control Backup Lamp Control	I I	— —
10 - 17	—	—	—	Not Occupied	—	—
18	0.35 0.35	WH/BU WH/D-BU	6973 6973	Camera Signal 2 Camera Signal 2	I I	— —
19	0.35 0.35	Bare BN	6974 6974	Camera Low Reference Camera Low Reference	I I	— —
20	0.35 0.35	WH/BU WH/D-BU	6973 6973	Camera Signal 2 Camera Signal 2	I I	— —

M5 Adjustable Pedal Motor (JF4)



1283897

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 10846805
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.5 Kaizen Series (L-GY)

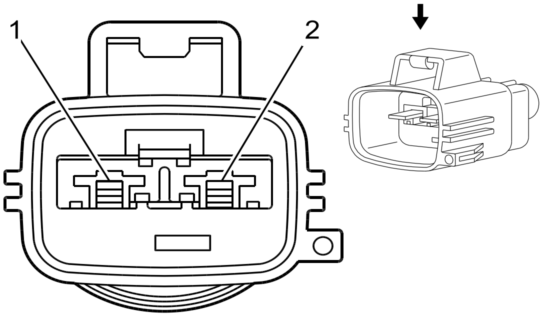
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M5 Adjustable Pedal Motor (JF4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/VT	5130	Adjustable Pedal Actuator Forward Control	I	—
2	0.5	BU	5952	Adjustable Pedal Position Sensor Brake Signal	I	—
3	0.5	BK/GY	6206	Memory Sensor Low Reference	I	—
4	1.5	YE	5129	Adjustable Pedal Actuator Rearward Control	I	—
5	0.5	WH/RD	6207	Memory Sensor High Reference	I	—
6	—	—	—	Not Occupied	—	—

M9 Brake Booster Pump Motor



Connector Part Information

Harness Type: Engine
OEM Connector: 15425573
Service Connector: 88953304
Description: 2-Way M 6.3 Weather Pack Series (D-GY)

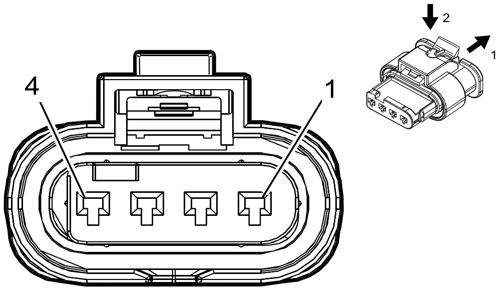
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M9 Brake Booster Pump Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BN/VT	1470	Brake Booster Pump Motor Control	I	—
2	2.5	BK	550	Ground	I	—

M26 Front Axle Engagement Actuator (NQF)



4249158

Connector Part Information

Harness Type: Transfer Case
OEM Connector: 33183676
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCON Series (BK)

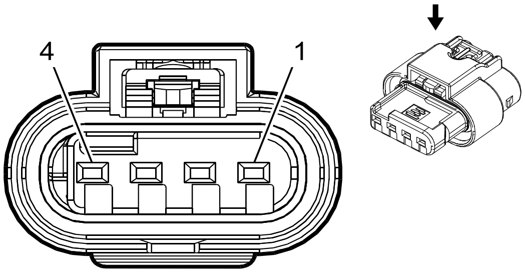
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M26 Front Axle Engagement Actuator (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
2	0.5	GY/BK	1570	Front Axle Actuator Control	I	—
3	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	I	—
4	0.5	BK	550	Ground	I	—

M26 Front Axle Engagement Actuator (NQH)



2596543

Connector Part Information

Harness Type: Transfer Case
OEM Connector: 13817132
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCP Series, Sealed (BK)

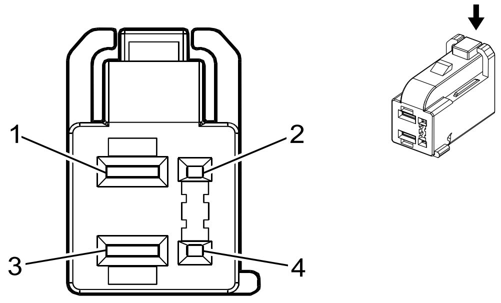
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M26 Front Axle Engagement Actuator (NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
2	0.5	GY/BK	1570	Front Axle Actuator Control	I	—
3	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	I	—
4	0.5	BK	550	Ground	I	—

M50D Seat Front Vertical Motor - Driver



3683652

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

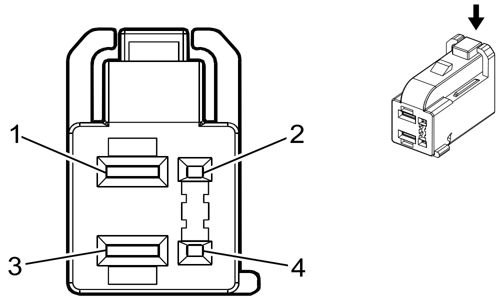
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M50D Seat Front Vertical Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	—
2	0.35	WH/RD	3298	Memory Sensor High Reference 2	II	—
3	1.5	BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	—
4	0.5	BN/WH	557	Memory Seat Front Vertical Motor Position Sensor Signal	II	—

M50P Seat Front Vertical Motor - Passenger



3683652

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

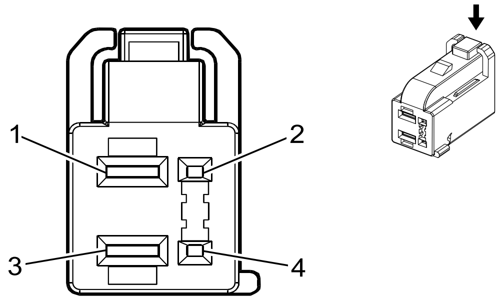
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M50P Seat Front Vertical Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	GN/VT	297	Passenger Power Seat Front Vertical Motor Up Control	I	—
4	—	—	—	Not Occupied	—	—

M51D Seat Horizontal Motor - Driver



3683652

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

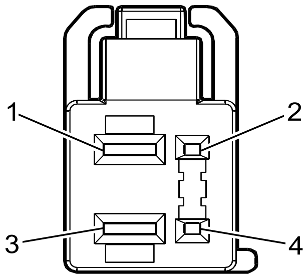
Terminal Part Information

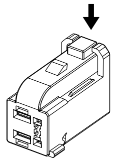
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M51D Seat Horizontal Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE/BU	285	Driver Power Seat Horizontal Motor Forward Control	I	—
2	0.35	WH/RD	3298	Memory Sensor High Reference 2	II	—
3	1.5	GY/GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	—
4	0.5	GN	569	Memory Seat Horizontal Motor Position Sensor Signal	II	—

M51P Seat Horizontal Motor - Passenger





3683652

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

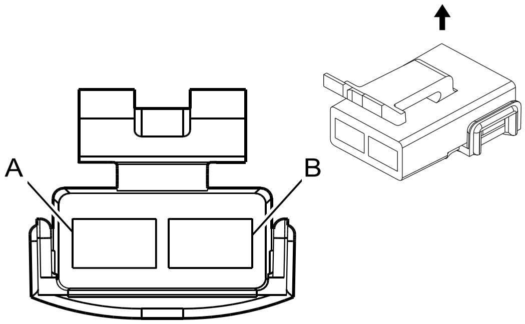
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M51P Seat Horizontal Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE/BU	290	Passenger Power Seat Horizontal Motor Rearward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE/WH	296	Passenger Power Seat Horizontal Motor Forward Control	I	—
4	—	—	—	Not Occupied	—	—

M52P Seat Lumbar Support Horizontal Motor - Passenger



130707

Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: 12020556
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

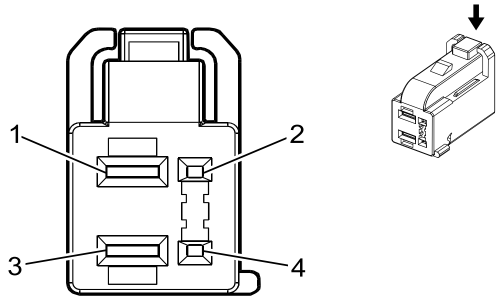
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M52P Seat Lumbar Support Horizontal Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	BU	211	Passenger Power Seat Lumbar Motor Forward Control	I	—
B	1.5	VT	210	Passenger Power Seat Lumbar Motor Rearward Control	I	—

M55D Seat Rear Vertical Motor - Driver



3683652

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

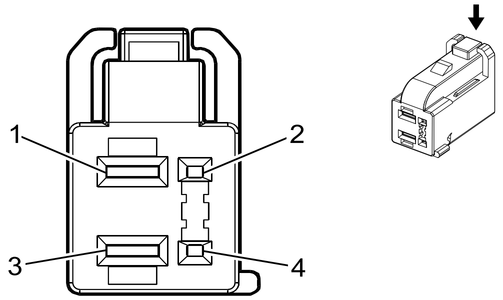
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M55D Seat Rear Vertical Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY/BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	—
2	0.35	WH/RD	3298	Memory Sensor High Reference 2	II	—
3	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	—
4	0.5	YE/BU	568	Memory Seat Rear Vertical Motor Position Sensor Signal	II	—

M55P Seat Rear Vertical Motor - Passenger



3683652

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

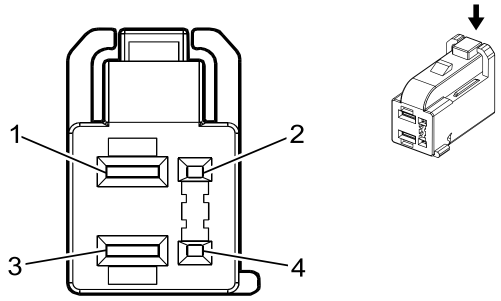
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M55P Seat Rear Vertical Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/WH	288	Passenger Power Seat Rear Vertical Motor Up Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU/WH	289	Passenger Power Seat Rear Vertical Motor Down Control	I	—
4	—	—	—	Not Occupied	—	—

M56P Seat Recline Motor - Passenger



Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BN)

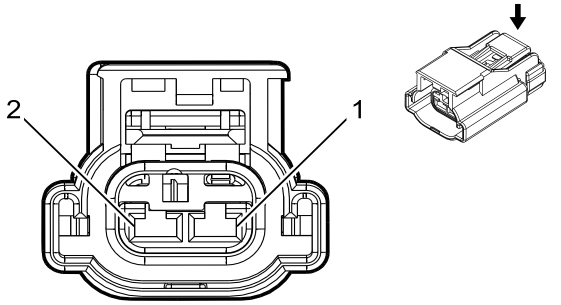
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M56P Seat Recline Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN	76	Passenger Power Seat Recline Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU/BN	77	Passenger Power Seat Recline Motor Rearward Control	I	—
4	—	—	—	Not Occupied	—	—

M63 Sliding Rear Window Motor



2716333

Connector Part Information

Harness Type: Body
OEM Connector: 13863838
Service Connector: 19301518
Description: 2-Way F 2.8 Series, Sealed (BK)

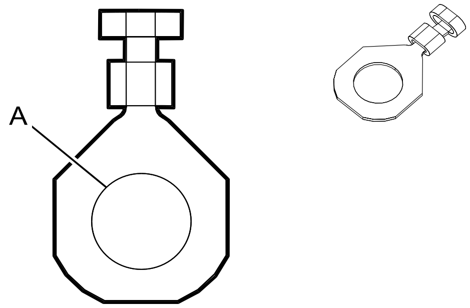
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M63 Sliding Rear Window Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY/GN	5441	Endgate Window Regulator Down Signal	I	—
2	2.5	YE/BU	5442	Endgate Window Regulator Up Signal	I	—

M64 Starter Motor (L5P)



Connector Part Information

Harness Type: Engine
OEM Connector: 12103519
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

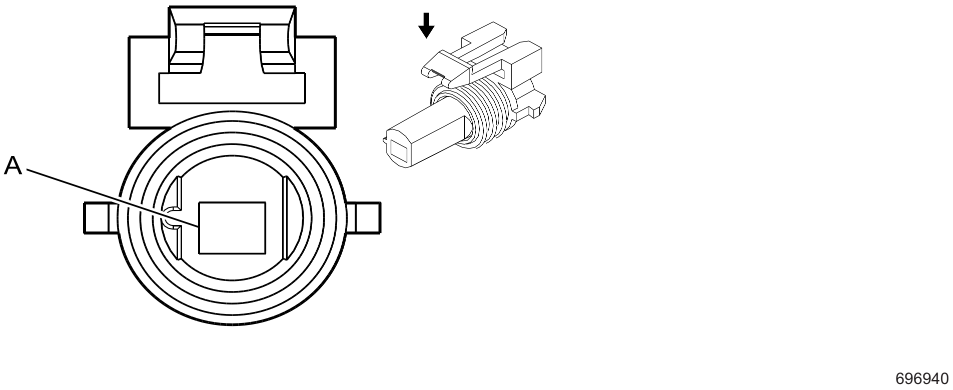
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE/VT	6	Starter Solenoid Crank Ignition Voltage	I	—

M64 Starter Motor (L96)



Connector Part Information

Harness Type: Engine
OEM Connector: 12089916
Service Connector: 19367559
Description: 1-Way F 280 Metri-Pack Series, Sealed (GY)

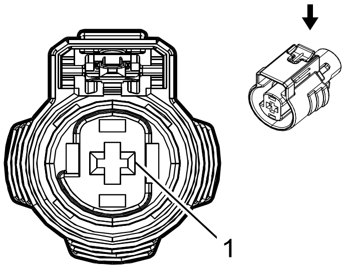
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	4	YE	6	Starter Solenoid Crank Ignition Voltage	I	—

M64 Starter Motor (LV3/L8B/L83/L86)



2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

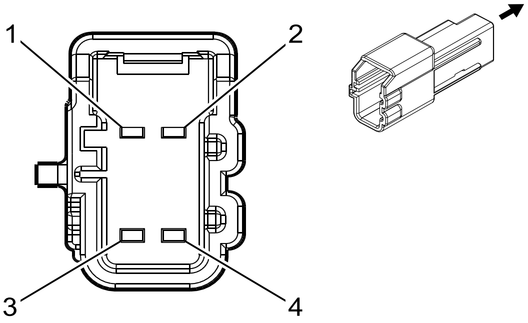
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor (LV3/L8B/L83/L86)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	YE	6	Starter Solenoid Crank Ignition Voltage	I	—

M73B Seat Blower Motor - Passenger Back



4210503

Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

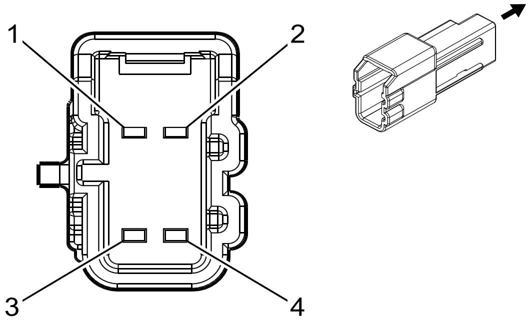
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M73B Seat Blower Motor - Passenger Back

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/GN	6140	Battery Positive Voltage	I	—
2	0.35	VT/WH	5908	Passenger Seat Vent Motor Control 1	I	—
3	0.75	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—

M73C Seat Blower Motor - Driver Cushion



4166306

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

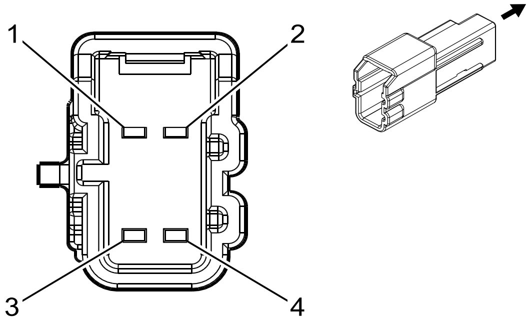
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M73C Seat Blower Motor - Driver Cushion

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/GN	5140	Battery Positive Voltage	I	—
2	0.35	GN/VT	5906	Driver Seat Vent Motor Control 1	I	—
3	0.75	BK	1150	Ground	I	—
4	—	—	—	Not Occupied	—	—

M73D Seat Blower Motor - Passenger Cushion



4166306

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

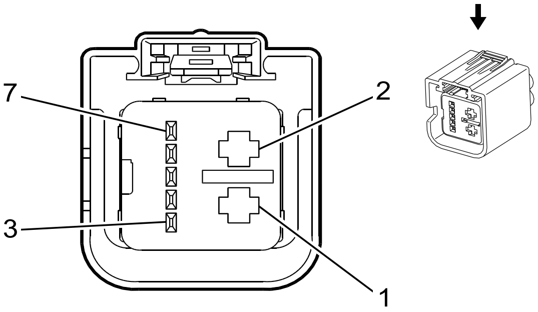
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M73D Seat Blower Motor - Passenger Cushion

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/GN	6140	Battery Positive Voltage	I	—
2	0.35	VT/WH	5908	Passenger Seat Vent Motor Control 1	I	—
3	0.75	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—

M74D Window Motor - Driver



2282932

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15504732
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed (BK)

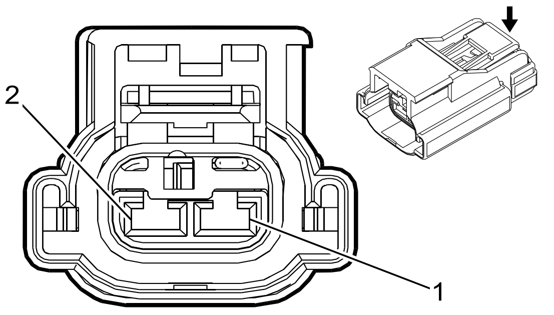
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74D Window Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1150	Ground	I	—
2	2.5	RD/BU	1842	Battery Positive Voltage	I	—
3	0.35	GN/WH	1300	Power Window Master Switch Left Front Up Signal	II	—
4	0.5	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	II	—
5	0.35	GN/VT	7628	Power Window Motor Left Front Express Control	II	—
6	0.35	GY	745	Left Front Door Ajar Switch Signal	II	—
7	0.35	GY	1136	Power Window Master Switch Left Front Down Signal	II	—

M74LR Window Motor - Left Rear



3372003

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

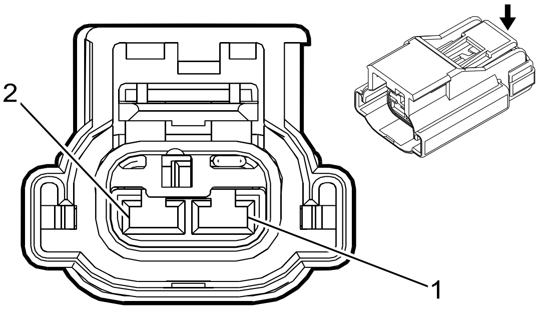
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74LR Window Motor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU/VT	668	Power Window Motor Left Rear Up Control	I	—
2	2.5	YE/BU	669	Power Window Motor Left Rear Down Control	I	—

M74P Window Motor - Passenger



3372003

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

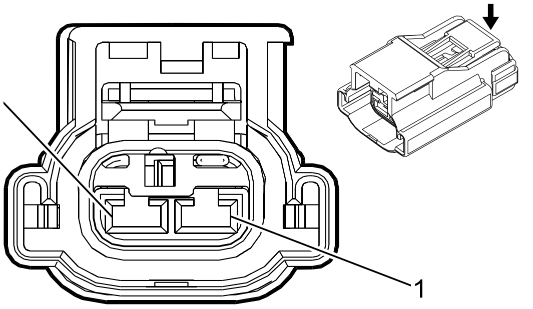
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74P Window Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE/BU	3388	Power Window Motor Passenger Down Control	I	—
2	2.5	GN/GY	3387	Power Window Motor Passenger Up Control	I	—

M74RR Window Motor - Right Rear



3372003

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

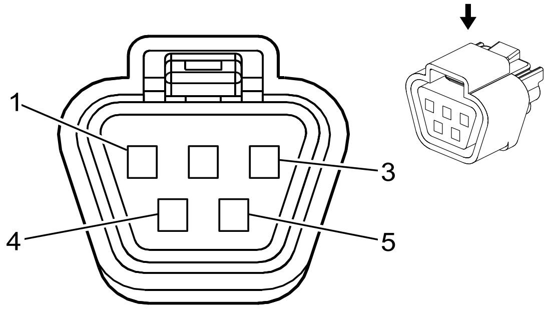
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74RR Window Motor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU/GY	670	Power Window Motor Right Rear Up Control	I	—
2	2.5	GN/BK	671	Power Window Motor Right Rear Down Control	I	—

M75 Windshield Wiper Motor



1715213

Connector Part Information

Harness Type: Body
OEM Connector: 15316488
Service Connector: 13587179
Description: 5-Way F 090 Series, Sealed (BK)

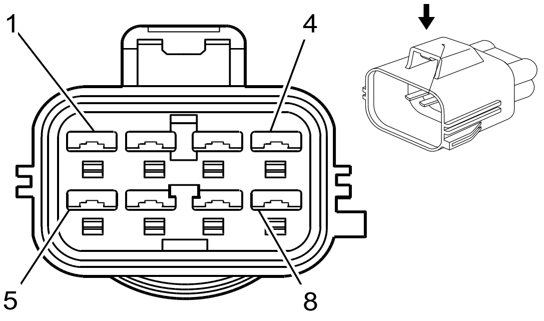
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE/BN	95	Windshield Wiper Motor Low Speed Control	I	—
2	0.5	BK	1850	Ground	I	—
3	0.5	BN/GN	196	Windshield Wiper Motor Park Switch Signal	I	—
4	1	WH	92	Windshield Wiper Motor High Speed Control	I	—
5	1	BK	550	Ground	I	—

M95L Assist Step - Left X1



1856785

Connector Part Information

Harness Type: Chassis
OEM Connector: 15419459
Service Connector: 19367561
Description: 8-Way M 2.8 Series, Sealed (D-GY)

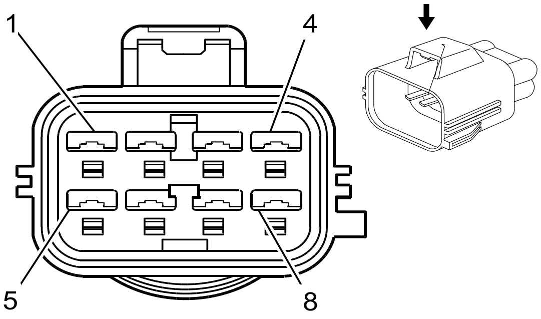
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M95L Assist Step - Left X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	WH/BN	7471	Articulating Running Boards Motor Left Control Extend	I	—
2	0.5	VT/RD	7468	Running Boards Motor Hall Sensor Left 5V Reference	I	—
3	0.5	YE	7467	Running Boards Motor Hall Sensor Left Signal	I	—
4	0.5	YE/BN	7466	Running Boards Motor Hall Sensor Left Low Reference	I	—
5	2	GY	7472	Articulating Running Boards Motor Left Control Retract	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	BN/WH	9001	—	I	—
8	0.5	BN/WH	9002	—	I	—

M95R Assist Step - Right X1



1856785

Connector Part Information

Harness Type: Chassis
OEM Connector: 15419459
Service Connector: 19367561
Description: 8-Way M 2.8 Series, Sealed (D-GY)

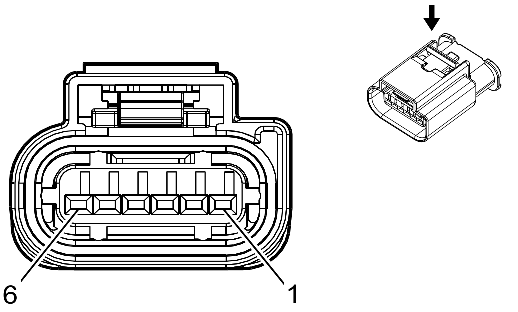
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M95R Assist Step - Right X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BU	7470	Articulating Running Boards Motor Right Control Extend	I	—
2	0.5	GN/RD	7464	Running Boards Motor Hall Sensor Right 5V Reference	I	—
3	0.5	VT	7465	Running Boards Motor Hall Sensor Right Signal	I	—
4	0.5	YE/BK	7463	Running Boards Motor Hall Sensor Right Low Reference	I	—
5	2	GN	7469	Articulating Running Boards Motor Right Control Retract	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	BN/WH	9000	—	I	—
8	0.5	BN/WH	9002	—	I	—

M103 Turbocharger Vane Position Actuator



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 13507080
Service Connector: 19354437
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

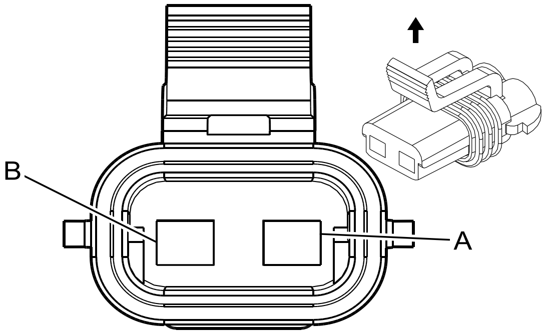
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M103 Turbocharger Vane Position Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	L5P
2	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	L5P
3	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	L5P
4	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	L5P
5	0.5	BK/WH	251	Signal Ground	I	L5P
6	0.5	VT/BU	3674	NOx Sensor 1 Control	I	L5P

P3 Backup Alarm



68721

Connector Part Information

Harness Type: Backup Alarm
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

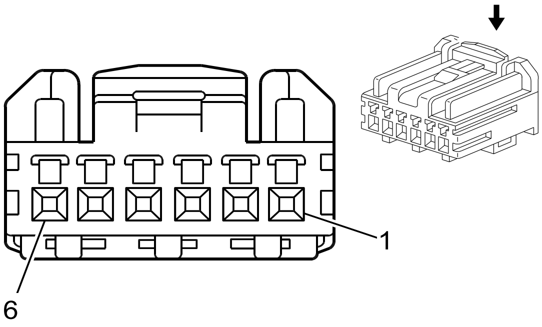
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P3 Backup Alarm

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	GN	1624	Trailer Backup Lamp Control	I	—
B	1	WH	22	Trailer Ground	I	—

P14 Passenger Air Bag Disabled Indicator (AL0/C99)



3681331

Connector Part Information

Harness Type: —
OEM Connector: 19151550
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (NA)

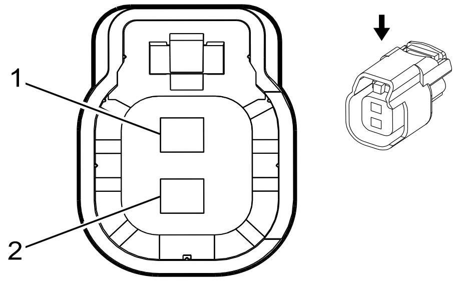
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

P14 Passenger Air Bag Disabled Indicator (AL0/C99)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
2	0.35	BK	1050	Ground	I	—
3	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
4	0.35	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	—
5	0.35	VT/WH	5234	Passenger Seat Belt Indicator Control	I	—
6	—	—	—	Not Occupied	—	—

P12 Horn



2422378

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13771883
Service Connector: 13579002
Description: 2-Way F 1.5 Series, Sealed (BK)

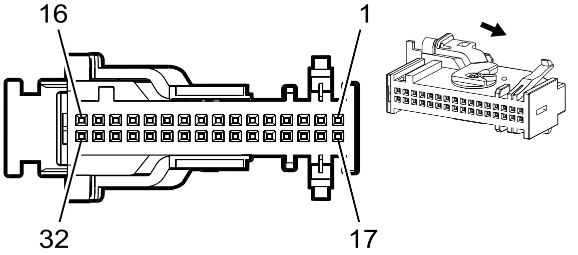
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P12 Horn

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	150	Ground	I	—
2	0.75	BN/GY	29	Horn Control	I	—

P16 Instrument Cluster



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12198036
Service Connector: 88988405
Description: 32-Way F 0.64 Micro-Quadlock Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575522	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

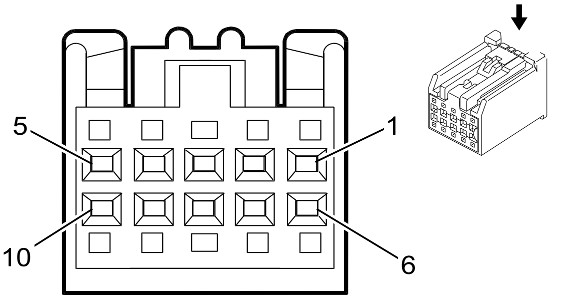
P16 Instrument Cluster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
2	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
3	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	WH/VT	3999	MOST Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	RD/GY	2840	Battery Positive Voltage	I	—
8	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	BU/YE	68	Low Coolant Level Indicator Control	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	—
13 - 15	—	—	—	Not Occupied	—	—
16	0.35	BN/WH	419	Check Engine Indicator Control	I	—
17	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
18	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
19	0.5	BK/WH	1851	Signal Ground	I	—
20	0.5	GN/BK	3894	Local Interconnect Network Serial Data Bus 12	I	—
21 - 23	—	—	—	Not Occupied	—	—
24	0.35	VT	185	Low Washer Fluid Indicator Control	I	—

P16 Instrument Cluster (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.35	BK/BU	61	Outside Ambient Temperature Sensor Low Reference	I	—
26	—	—	—	Not Occupied	—	—
27	0.35	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.35	WH/GN	3535	Reflected LED Display Dimming Control	I	—
31	—	—	—	Not Occupied	—	—
32	0.35	GN/BN	507	Wait To Start Indicator Control	I	—

P17 Info Display Module X1 (IO3)



2180211

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

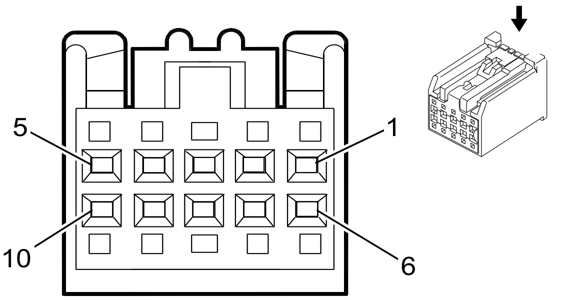
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

P17 Info Display Module X1 (IO3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GY	2840	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	GN/BU	7532	Local Interconnect Network Serial Data Bus 10	I	—
6 - 9	—	—	—	Not Occupied	—	—
10	0.35	BK	2550	Ground	I	—

P17 Info Display Module X1 (IO5/IO6)



2180211

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

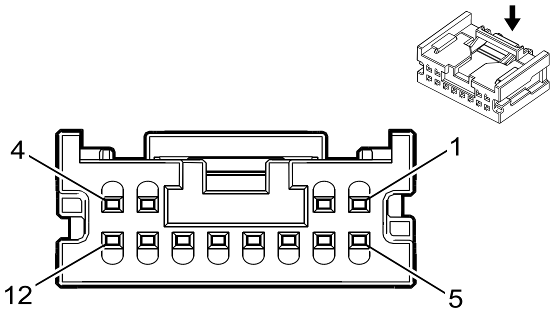
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

P17 Info Display Module X1 (IO5/IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GY	2840	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	GN/BU	7532	Local Interconnect Network Serial Data Bus 10	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	GN/WH	7527	Local Interconnect Network Serial Data Bus 5	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BK	2550	Ground	I	—

P17 Info Display Module X1 (IOB)



3824362

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33253016
Service Connector: 13588265
Description: 12-Way F Mini 50 Series (BK)

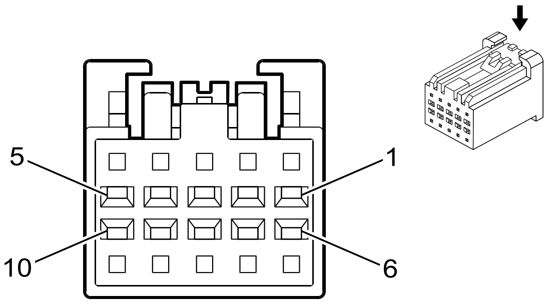
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19333221	EL-35616-58 (BK)	J-38125-553	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X1 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN	9004	—	I	—
2	0.35	BN/GN	3364	Navigation Display Reset Signal	I	—
3	0.35	GY/BN	3761	Infotainment Regulated Control	I	—
4	0.35	GN/BK	2515	Keypad Control	I	—
5	0.35	VT/GY	1381	LCD Dimming Signal	I	—
6	0.35	GY/BU	3989	Display Radio Bank Switch Dim Signal	I	—
7	0.35	BN/GN	4502	Video Display Request Signal	I	—
8	0.35	GY/BN	9003	—	I	—
9	0.35	BK	2550	Ground	I	—
10	0.35	BK	2550	Ground	I	—
11	0.35	BK/BN	2518	Keypad Low Reference	I	—
12	0.35	GY/BU	3989	Display Radio Bank Switch Dim Signal	I	—

P17 Info Display Module X2 (IO5/IO6)



2840038

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13876499
Service Connector: 13581139
Description: 10-Way F 0.64 Kaizen Series (GY)

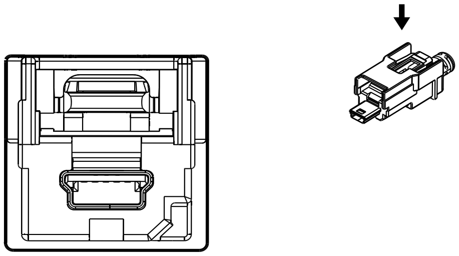
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

P17 Info Display Module X2 (IO5/IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GY	2840	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
4 - 8	—	—	—	Not Occupied	—	—
9	0.35	GN/YE	7531	Local Interconnect Network Serial Data Bus 9	I	—
10	0.35	BK	2550	Ground	I	—

P17 Info Display Module X3 (IO3/IO5/IO6)



2807425

Connector Part Information

Harness Type: Instrument Panel LVDS
OEM Connector: 13585076
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type (BK)

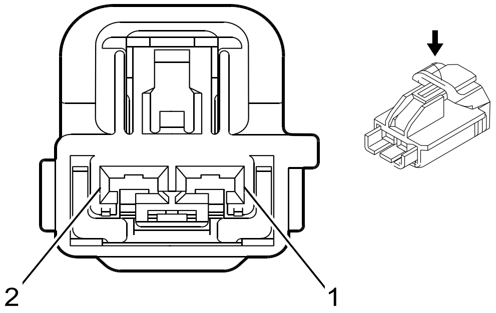
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

P17 Info Display Module X3 (IO3/IO5/IO6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(Infotainment) Infotainment Display Signal	I	—

P19AC Speaker - Subwoofer



1803142

Connector Part Information

Harness Type: Body
OEM Connector: 10846819
Service Connector: 19367562
Description: 2-Way F YESC Kaizen Series (L-GY)

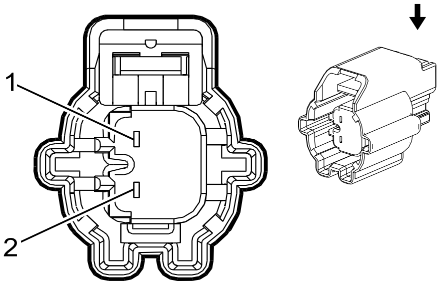
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AC Speaker - Subwoofer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU/GY	346	Left/Rear Subwoofer Speaker Control (+)	I	—
2	2.5	GY/BK	315	Right Subwoofer Speaker (-) Low Reference	I	—

P19AG Speaker - Left Front Door (AU3)



2179782

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13665501
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series (BK)

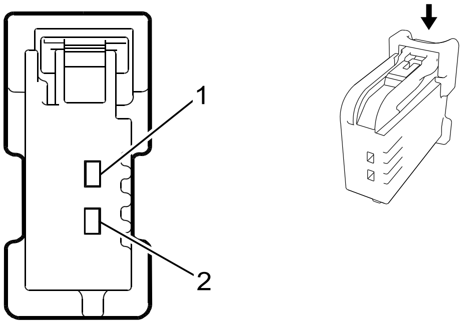
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AG Speaker - Left Front Door (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
2	1	BU	201	Left Front Speaker Control (+) 1	I	—

P19AG Speaker - Left Front Door (D07)



2173586

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series (BK)

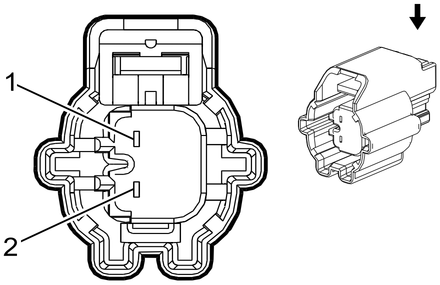
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AG Speaker - Left Front Door (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
2	0.5	BU	201	Left Front Speaker Control (+) 1	I	—

P19AH Speaker - Right Front Door



2179782

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13665501
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series (BK)

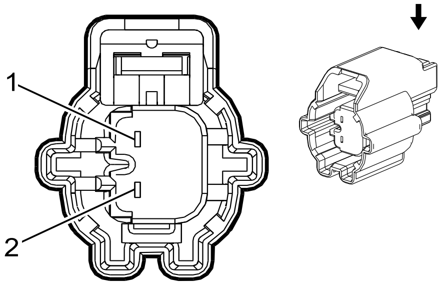
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AH Speaker - Right Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
2	1	YE	200	Right Front Speaker Control (+) 1	I	—

P19AL Speaker - Left Rear Door



2179782

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 13665501
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series (BK)

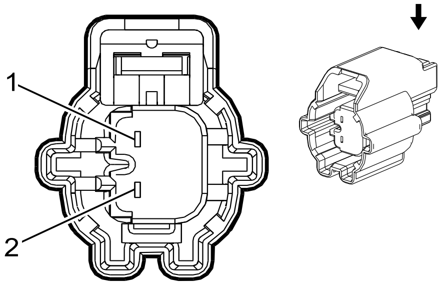
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AL Speaker - Left Rear Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GN/BK	116	Left Rear Speaker Signal (-)	I	—
2	1	GN	199	Left Rear Speaker Control (+)	I	—

P19AM Speaker - Right Rear Door



2179782

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 13665501
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series (BK)

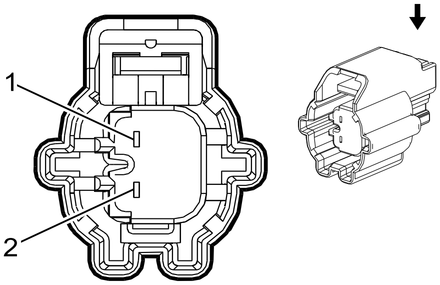
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AM Speaker - Right Rear Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BU/BK	115	Right Rear Speaker Signal (-)	I	—
2	1	WH	46	Right Rear Speaker Control (+)	I	—

P19AN Speaker - Left Rear Trim Panel



2179782

Connector Part Information

Harness Type: Body
OEM Connector: 13665501
Service Connector: 19301724
Description: 2-Way F 150 GT Series (BK)

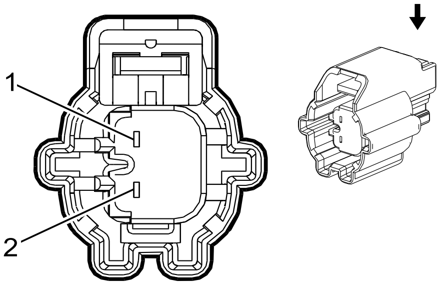
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AN Speaker - Left Rear Trim Panel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BK	116	Left Rear Speaker Signal (-)	I	—
2	0.5	GN	199	Left Rear Speaker Control (+)	I	—

P19AP Speaker - Right Rear Trim Panel



2179782

Connector Part Information

Harness Type: Body
OEM Connector: 13665501
Service Connector: 19301724
Description: 2-Way F 150 GT Series (BK)

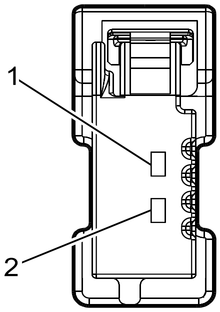
Terminal Part Information

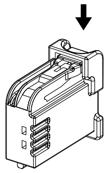
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AP Speaker - Right Rear Trim Panel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/BK	115	Right Rear Speaker Signal (-)	I	—
2	0.5	WH	46	Right Rear Speaker Control (+)	I	—

P19J Speaker - Left Instrument Panel (UQA)





Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13608099
Service Connector: 13314097
Description: 2-Way F 1.5 Series (GY)

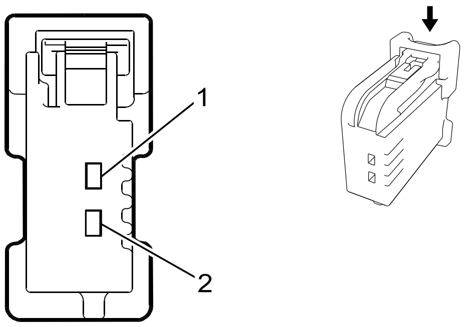
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19J Speaker - Left Instrument Panel (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/GY	1956	Left Front Tweeter Speaker (-) Low Reference	I	—
2	0.75	YE/BU	1856	Left Front Tweeter Speaker Control (+)	I	—

P19J Speaker - Left Instrument Panel (-UQA)



2173586

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series (BK)

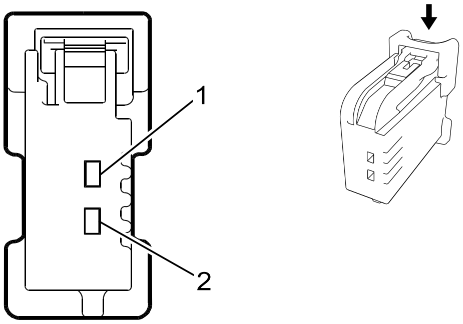
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19J Speaker - Left Instrument Panel (-UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
2	0.5	BU	201	Left Front Speaker Control (+) 1	I	—

P19W Speaker - Right Instrument Panel (UQ3/UQG/-UQA)



2173586

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series (BK)

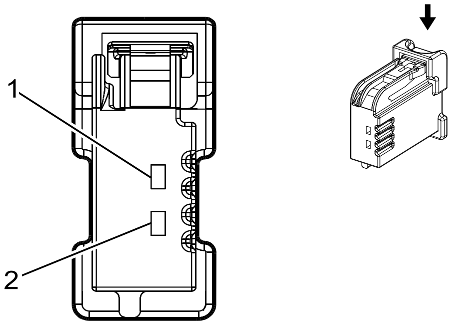
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19W Speaker - Right Instrument Panel (UQ3/UQG/-UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
2	0.5	YE	200	Right Front Speaker Control (+) 1	I	—

P19W Speaker - Right Instrument Panel (UQA)



2179775

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13608099
Service Connector: 13314097
Description: 2-Way F 1.5 Series (GY)

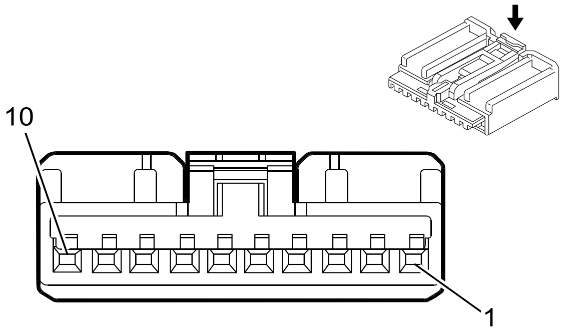
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19W Speaker - Right Instrument Panel (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BN	1952	Right Front Tweeter Speaker (-) Low Reference	I	—
2	0.75	BN/GN	1852	Right Front Tweeter Speaker Control (+)	I	—

P22A Video Display - 2nd Row X2



1862241

Connector Part Information

Harness Type: Headliner
OEM Connector: 13574592
Service Connector: 13576634
Description: 10-Way F 0.64 Kaizen Series (BK)

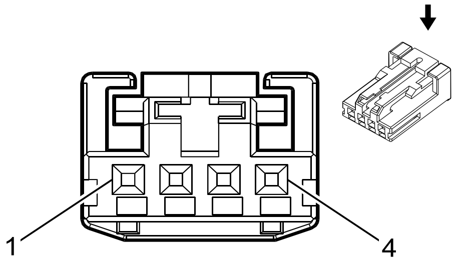
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

P22A Video Display - 2nd Row X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/GN	7558	LED Ambient Lighting Control 2	I	—
2	0.5	BK	1050	Ground	I	—
3	0.5	GY	157	Interior Lamp Control	I	—
4	0.5	YE	6817	LED Backlight Dimming Control	I	—
5	0.5	WH/BN	6815	Inadvertent Power Control	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	BK/WH	2550	Ground	I	—
9	0.35	GN/YE	7066	Entertainment Remote Enable Signal	I	—
10	0.5	RD/GN	1540	Battery Positive Voltage	I	—

P43 Collision Alert Indicators



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13853727
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

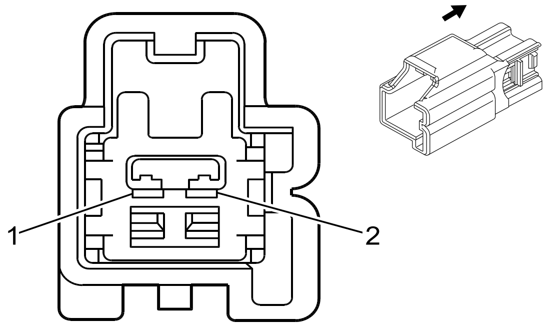
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P43 Collision Alert Indicators

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage	I	—
2	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	—
3	0.35	WH/GN	3535	Reflected LED Display Dimming Control	I	—
4	0.35	BK/WH	1851	Signal Ground	I	—

P45LR Seat Haptic Movement Motor - Driver Left Rear



1853532

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7282-6443-40
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.5 Series (L-GY)

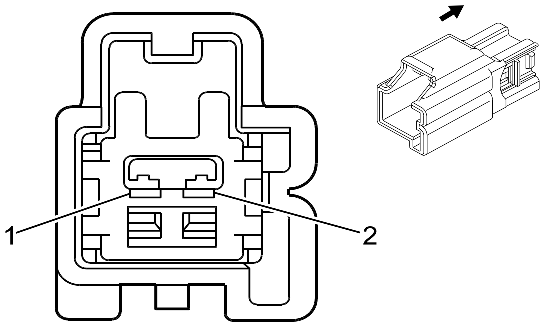
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P45LR Seat Haptic Movement Motor - Driver Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	3037	Left Rear Haptic Seat Motor Control	I	—
2	0.5	BK	1150	Ground	I	—

P45RR Seat Haptic Movement Motor - Driver Right Rear



1853532

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7282-6443-40
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.5 Series (L-GY)

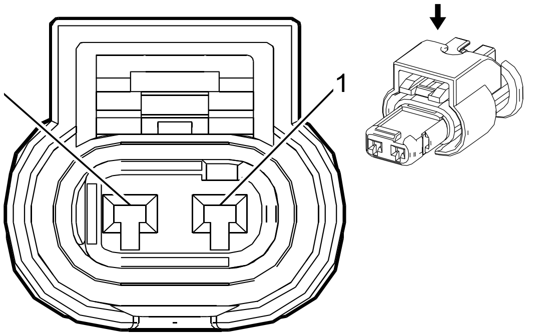
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P45RR Seat Haptic Movement Motor - Driver Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3038	Right Rear Haptic Seat Motor Control	I	—
2	0.5	BK	1150	Ground	I	—

Q2 A/C Compressor Clutch



2474752

Connector Part Information

Harness Type: Engine
OEM Connector: 13927761
Service Connector: 19367528
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

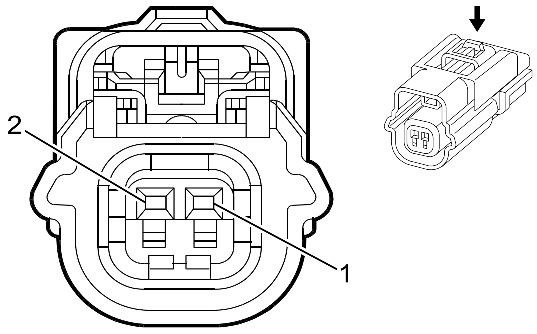
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q2 A/C Compressor Clutch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	550	Ground	I	—
2	0.75	BN/GN	59	A/C Compressor Clutch Control	I	—

Q6 Camshaft Position Actuator Solenoid Valve



1664592

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13528494
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed (BK)

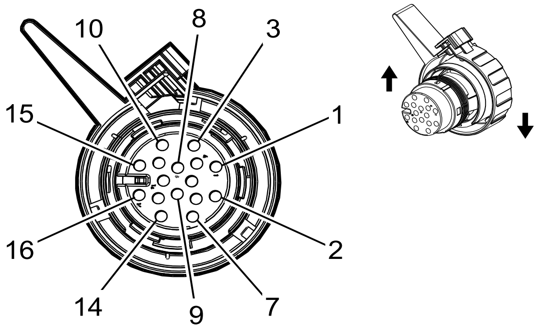
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q6 Camshaft Position Actuator Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—
2	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—

Q8 Control Solenoid Valve Assembly X1



3277917

Connector Part Information

Harness Type: Engine
OEM Connector: 13878751
Service Connector: 19303772
Description: 16-Way F 1.5 Series, Sealed (BK)

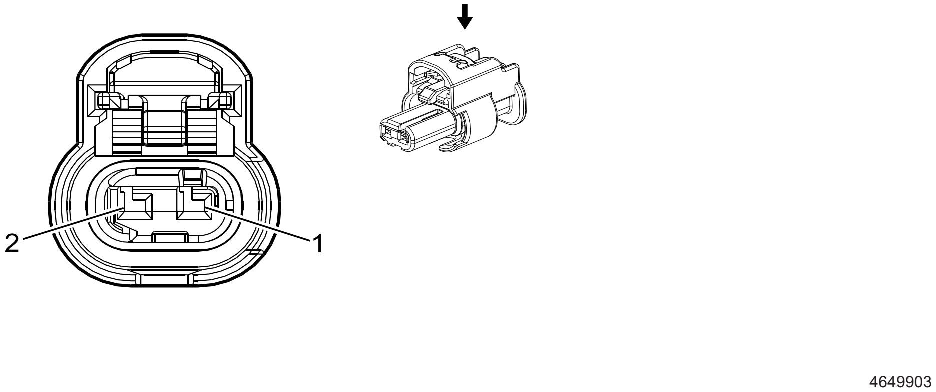
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578934	J-35616-66 (YE)	J-38125-28	2 21 24 47220 0	Yazaki 12	E	1

Q8 Control Solenoid Valve Assembly X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
4	0.75	RD/GN	1840	Battery Positive Voltage	I	—
5	0.75	BK/WH	451	Signal Ground	I	—
6 - 8	—	—	—	Not Occupied	—	—
9	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
10	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
11	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
12	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
13	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
14	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
15	—	—	—	Not Occupied	—	—
16	0.5	BN/WH	6354	Output Speed High (Replicated TOS) Input Signal	I	—

Q12 Evaporative Emission Purge Solenoid Valve (L83/L86/L8B/LV3)



Connector Part Information

Harness Type: Engine
OEM Connector: 33327048
Service Connector: 19366842
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

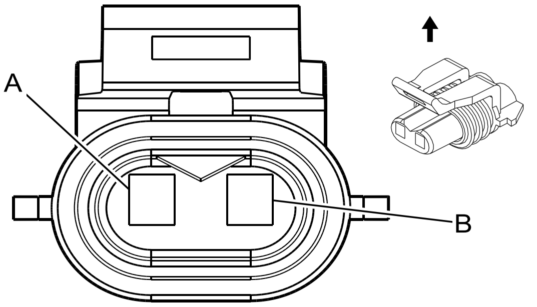
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q12 Evaporative Emission Purge Solenoid Valve (L83/L86/L8B/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
2	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	—

Q12 Evaporative Emission Purge Solenoid Valve (L96)



684829

Connector Part Information

Harness Type: Engine
OEM Connector: 12124037
Service Connector: 13585860
Description: 2-Way F 150 Metri-Pack Series, Sealed (BK)

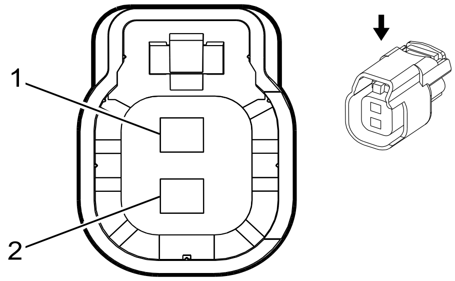
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q12 Evaporative Emission Purge Solenoid Valve (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
B	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	—

Q13 Evaporative Emission Vent Solenoid Valve



2422378

Connector Part Information

Harness Type: Chassis
OEM Connector: 13771883
Service Connector: 13579002
Description: 2-Way F 1.5 Series, Sealed (BK)

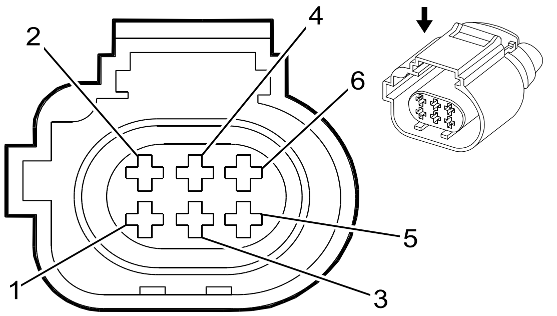
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q13 Evaporative Emission Vent Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—
2	0.5	RD/GN	1840	Battery Positive Voltage	I	—

Q14 Exhaust Gas Recirculation Valve



2216905

Connector Part Information

Harness Type: Engine
OEM Connector: 284716-5
Service Connector: 19354082
Description: 6-Way F 1.6 Micro-Timer Series, Sealed (GY)

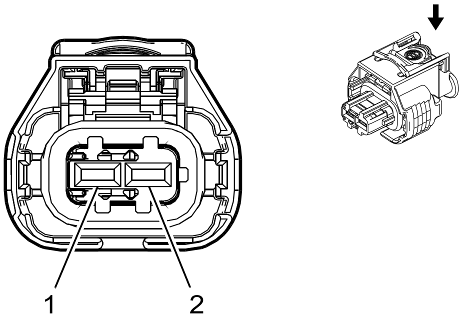
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q14 Exhaust Gas Recirculation Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve Motor High Signal	I	L5P
2	0.5	BN/WH	5763	Exhaust Gas Recirculation Valve Sensor Signal	I	L5P
3	—	—	—	Not Occupied	—	—
4	0.5	BK/BN	2753	Exhaust Gas Recirculation Sensor Low Reference	I	L5P
5	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Motor Low Signal	I	L5P
6	0.5	BU/RD	2702	Exhaust Gas Recirculation 5V Reference 2	I	L5P

Q17A Fuel Injector 1 (L5P)



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19299882
Description: 2-Way F 2.8 Series, Sealed (BK)

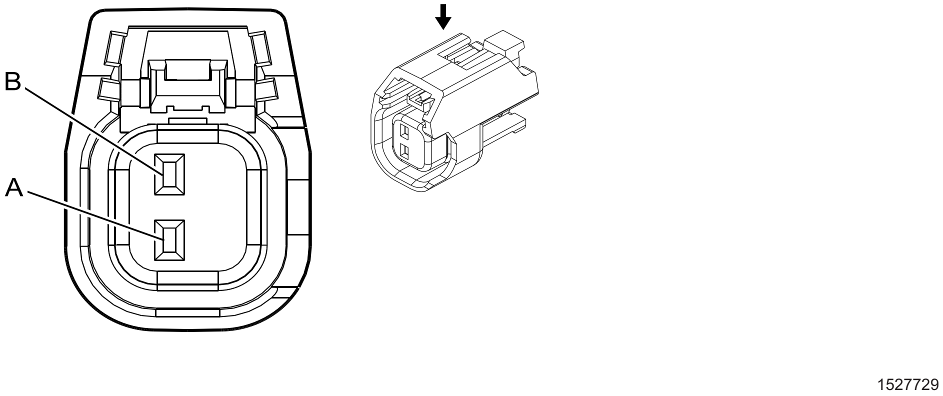
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17A Fuel Injector 1 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	I	L5P
2	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	I	L5P

Q17A Fuel Injector 1 (L96)



Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

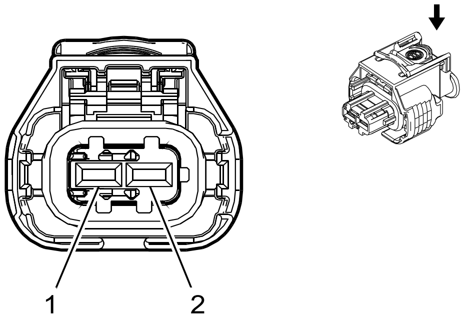
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17A Fuel Injector 1 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
B	0.5	GN/YE	1744	Fuel Injector Control 1	I	—

Q17B Fuel Injector 2 (L5P)



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19299882
Description: 2-Way F 2.8 Series, Sealed (BK)

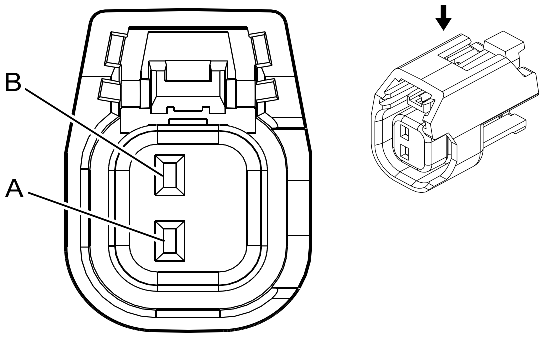
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17B Fuel Injector 2 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	I	L5P
2	0.75	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	I	L5P

Q17B Fuel Injector 2 (L96)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

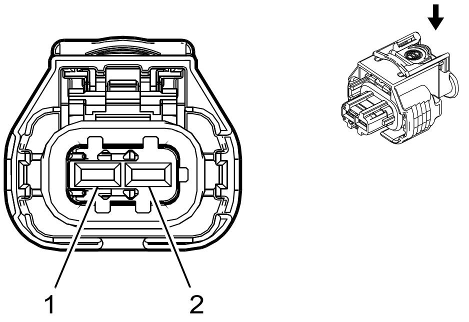
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17B Fuel Injector 2 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
B	0.5	YE/WH	1745	Fuel Injector Control 2	I	—

Q17C Fuel Injector 3 (L5P)



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19299882
Description: 2-Way F 2.8 Series, Sealed (BK)

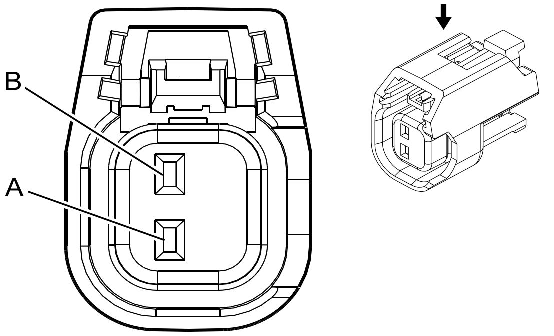
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17C Fuel Injector 3 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	I	L5P
2	0.75	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	I	L5P

Q17C Fuel Injector 3 (L96)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

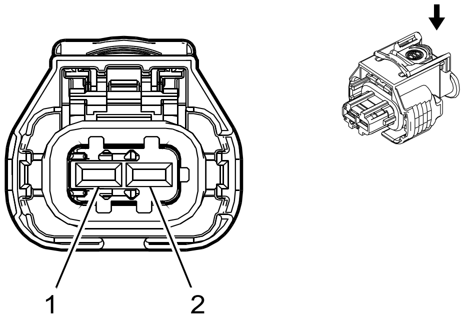
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17C Fuel Injector 3 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
B	0.5	BN/VT	1746	Fuel Injector Control 3	I	—

Q17D Fuel Injector 4 (L5P)



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19299882
Description: 2-Way F 2.8 Series, Sealed (BK)

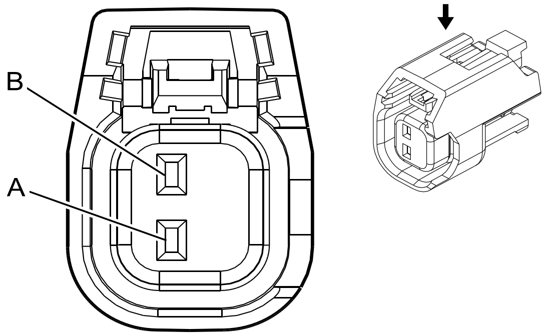
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17D Fuel Injector 4 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	L5P
2	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	L5P

Q17D Fuel Injector 4 (L96)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

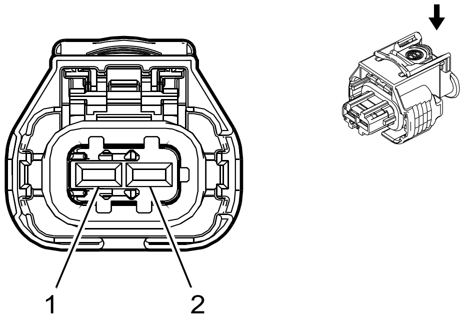
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17D Fuel Injector 4 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
B	0.5	BN/YE	844	Fuel Injector Control 4	I	—

Q17E Fuel Injector 5 (L5P)



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19299882
Description: 2-Way F 2.8 Series, Sealed (BK)

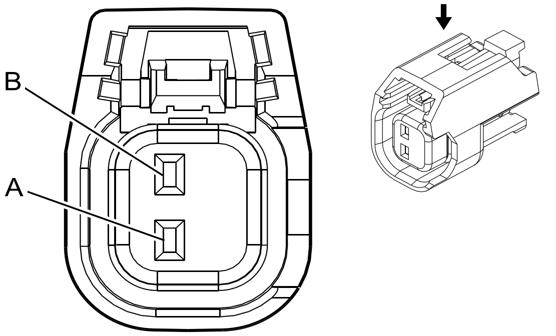
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17E Fuel Injector 5 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	I	L5P
2	0.75	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	I	L5P

Q17E Fuel Injector 5 (L96)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

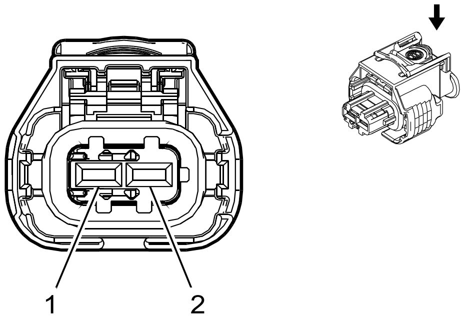
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17E Fuel Injector 5 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
B	0.5	BN/GN	845	Fuel Injector Control 5	I	—

Q17F Fuel Injector 6 (L5P)



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19299882
Description: 2-Way F 2.8 Series, Sealed (BK)

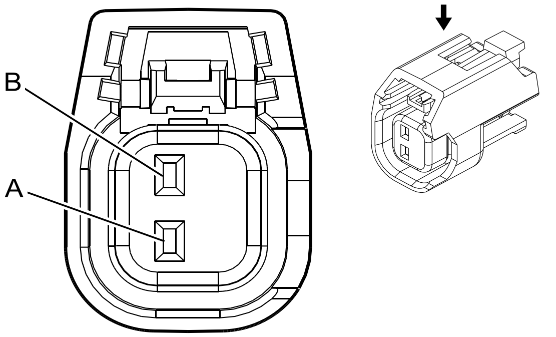
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17F Fuel Injector 6 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/GN	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	I	L5P
2	0.75	VT/GY	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	I	L5P

Q17F Fuel Injector 6 (L96)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

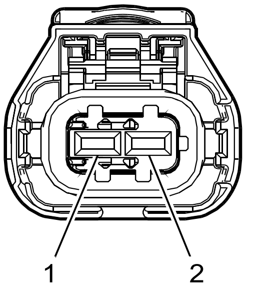
Terminal Part Information

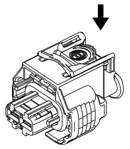
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17F Fuel Injector 6 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
B	0.5	BN/BU	846	Fuel Injector Control 6	I	—

Q17G Fuel Injector 7 (L5P)





Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19299882
Description: 2-Way F 2.8 Series, Sealed (BK)

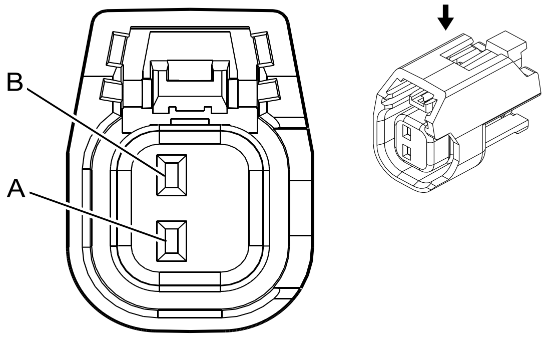
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17G Fuel Injector 7 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/GY	4807	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	I	L5P
2	0.75	WH/YE	4907	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	I	L5P

Q17G Fuel Injector 7 (L96)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

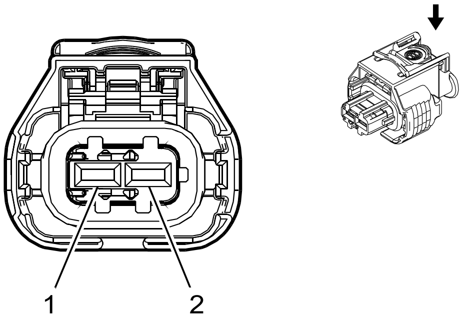
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17G Fuel Injector 7 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
B	0.5	BN/VT	877	Fuel Injector Control 7	I	—

Q17H Fuel Injector 8 (L5P)



2845578

Connector Part Information

Harness Type: Engine
OEM Connector: 13343445
Service Connector: 19299882
Description: 2-Way F 2.8 Series, Sealed (BK)

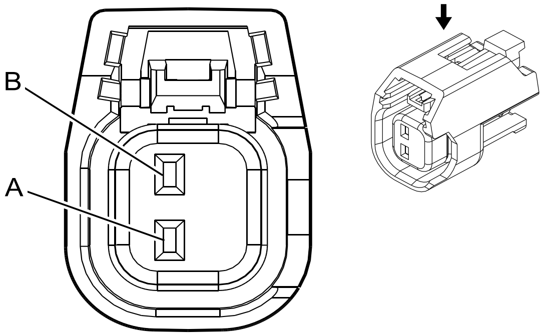
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17H Fuel Injector 8 (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY	4808	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	I	L5P
2	0.75	GY/WH	4908	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	I	L5P

Q17H Fuel Injector 8 (L96)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

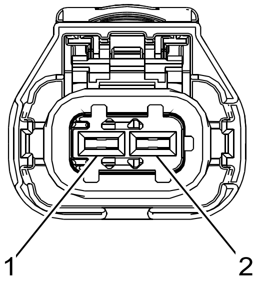
Terminal Part Information

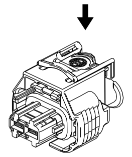
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17H Fuel Injector 8 (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
B	0.5	BN/GY	878	Fuel Injector Control 8	I	—

Q18A Fuel Pressure Regulator 1





2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13343443
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

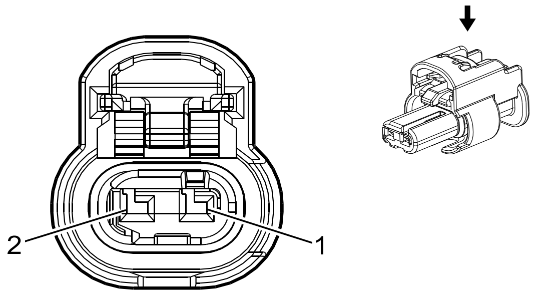
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q18A Fuel Pressure Regulator 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BK	2929	Fuel Metering Valve Low Control	I	L5P
2	0.5	YE	2928	Fuel Metering Valve High Control	I	L5P

Q37LF Shock Absorber Actuator - Left Front



4649903

Connector Part Information

Harness Type: Chassis
OEM Connector: 33327048
Service Connector: 19366842
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

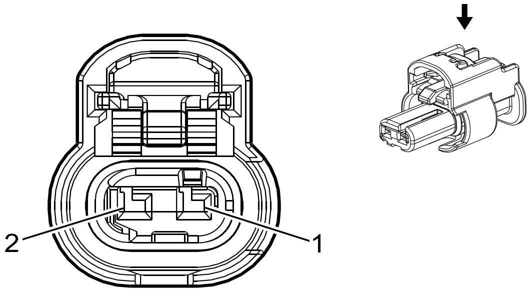
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q37LF Shock Absorber Actuator - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/VT	1010	Left Rear Strut Motor Increase Damping Control	I	—
2	0.75	WH/BK	1013	Left Rear Strut Motor Decrease Damping Control	I	—

Q37RF Shock Absorber Actuator - Right Front



Connector Part Information

Harness Type: Chassis
OEM Connector: 33327048
Service Connector: 19366842
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

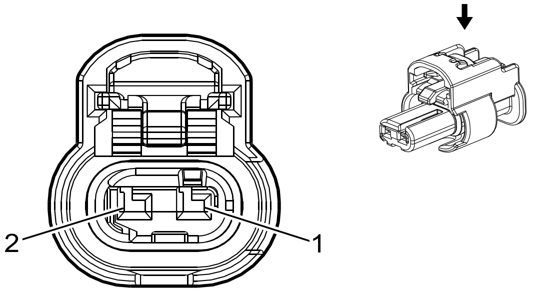
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q37RF Shock Absorber Actuator - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	WH/GY WH/BK	1448 1006	Left Front Strut Motor Increase Damping Control Right Front Strut Motor Increase Damping Control	I I	— 43+Z95
2	0.75 0.75	WH/GN BN	1005 1009	Left Front Strut Motor Decrease Damping Control Right Front Strut Motor Decrease Damping Control	I I	— 43+Z95

Q37RR Shock Absorber Actuator - Right Rear



4649903

Connector Part Information

Harness Type: Chassis
OEM Connector: 33327048
Service Connector: 19366842
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

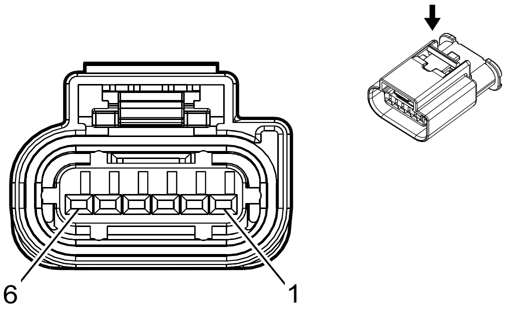
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q37RR Shock Absorber Actuator - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE	1014	Right Rear Strut Motor Increase Damping Control	I	—
2	0.75	VT	1017	Right Rear Strut Motor Decrease Damping Control	I	—

Q38 Throttle Body (L5P)



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 13507087
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

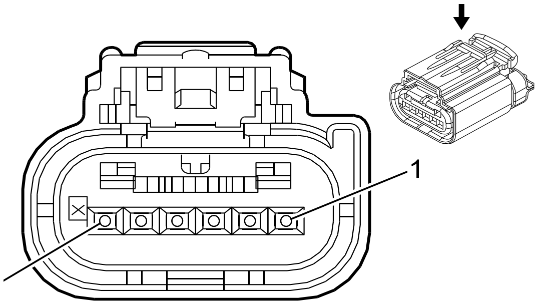
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q38 Throttle Body (L5P)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Control Open	I	L5P
2	0.5	BN/WH	582	Throttle Actuator Control Close	I	L5P
3	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	L5P
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	L5P
5	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	L5P
6	—	—	—	Not Occupied	—	—

Q38 Throttle Body (L83/L86/LV3/L8B)



2482433

Connector Part Information

Harness Type: Engine
OEM Connector: 13699991
Service Connector: 13581267
Description: 6-Way F 0.64 GET Series, Sealed (BK)

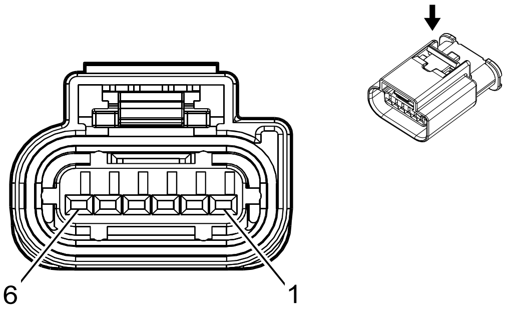
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q38 Throttle Body (L83/L86/LV3/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Control Open	I	—
2	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
3	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
6	—	—	—	Not Occupied	—	—

Q38 Throttle Body (L96)



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 33220833
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

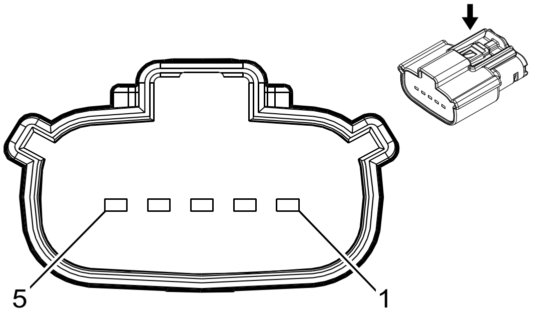
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q38 Throttle Body (L96)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Control Open	I	—
2	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
3	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN/YE	2701	Throttle Position Sensor 5V Reference	I	—
6	—	—	—	Not Occupied	—	—

Q43 Valve Lifter Oil Manifold Assembly



3240108

Connector Part Information

Harness Type: Engine
OEM Connector: 13845946
Service Connector: 19301719
Description: 5-Way F 150 MX Series, Sealed (BK)

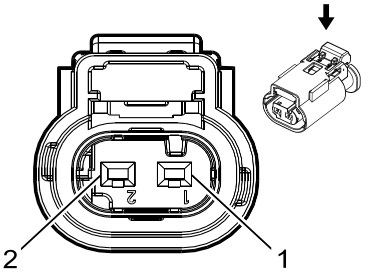
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q43 Valve Lifter Oil Manifold Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	YE/BU BU	5494 5491	Cylinder Shutoff Solenoid Control 4 Cylinder Shutoff Solenoid Control 1	I I	L83/L86/L8B -MXW
2	0.5	GY	5493	Cylinder Shutoff Solenoid Control 3	I	—
3	0.5 0.75	BU VT/BU	5491 5293	Cylinder Shutoff Solenoid Control 1 Powertrain Main Relay Fused Supply 4	I I	L83/L86/L8B -MXW
4	0.75	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
5	0.5	GN	5492	Cylinder Shutoff Solenoid Control 2	I	—

Q44 Engine Oil Pressure Control Solenoid Valve



2717066

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13735326
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

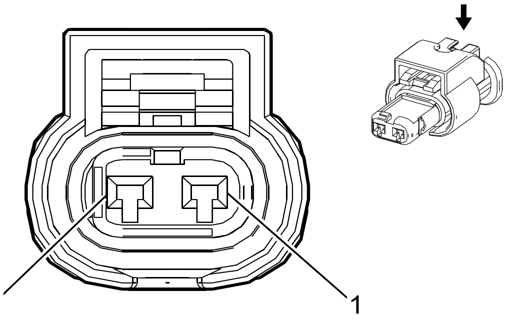
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q44 Engine Oil Pressure Control Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
2	0.5	BU	179	Oil Pump Command Signal	I	—

Q46 A/C Compressor Solenoid Valve



2851901

Connector Part Information

Harness Type: Engine
OEM Connector: 13927762
Service Connector: 19299928
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

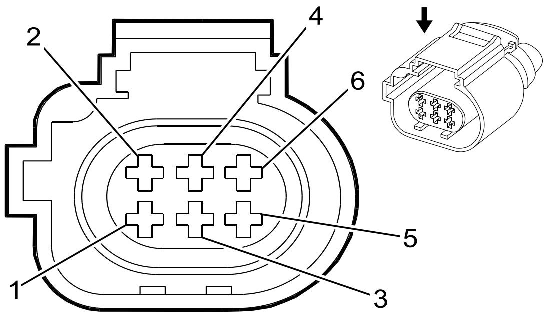
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q46 A/C Compressor Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU/YE	7574	Electric Variable Displacement Control	I	—
2	0.75	BU/BN	7573	Electric Variable Displacement Supply	I	—

Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve



2216905

Connector Part Information

Harness Type: Engine
OEM Connector: 284716-5
Service Connector: 19354082
Description: 6-Way F 1.6 Micro-Timer Series, Sealed (GY)

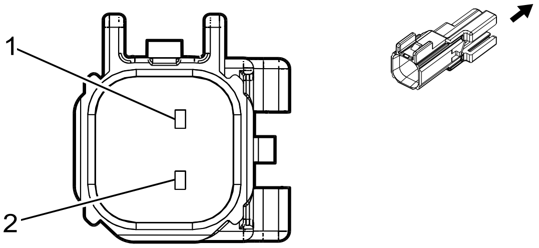
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/VT	3656	EGR Cooler Bypass Motor Close Control	I	L5P
2	0.5	GN/GY	3654	EGR Cooler Bypass Position Sensor Signal	I	L5P
3	—	—	—	Not Occupied	—	—
4	0.5	BK/BU	3653	EGR Cooler Bypass Position Sensor Low Reference	I	L5P
5	0.5	YE/GN	3655	EGR Cooler Bypass Motor Open Control	I	L5P
6	0.5	VT/RD	3652	EGR Cooler Bypass Position Sensor 5V Reference	I	L5P

Q61 Reductant Injector



3271068

Connector Part Information

Harness Type: Engine
OEM Connector: 13719748
Service Connector: 19301583
Description: 2-Way M 1.5 Series, Sealed (BK)

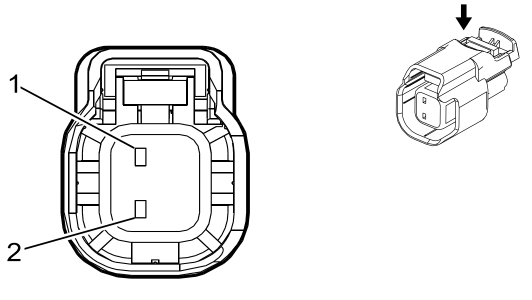
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q61 Reductant Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	3099	DEF Dosing Valve High Control	I	—
2	0.75	BN/WH	3100	DEF Dosing Valve Low Control	I	—

Q67 Exhaust Aftertreatment Fuel Injector



Connector Part Information

Harness Type: Chassis
OEM Connector: 13820418
Service Connector: 13580230
Description: 2-Way F 1.5 Series, Sealed (BK)

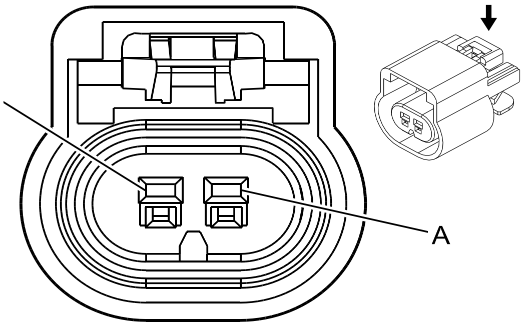
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q67 Exhaust Aftertreatment Fuel Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BU	2926	Hydrocarbon Injector High Control	I	—
2	0.5	VT/YE	2927	Hydrocarbon Injector Low Control	I	—

R6A Terminating Resistor - High Speed Bus



523630

Connector Part Information

Harness Type: Chassis
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

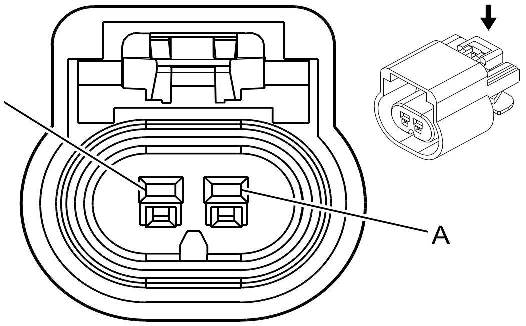
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R6A Terminating Resistor - High Speed Bus

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—

R6E Terminating Resistor - High Speed Extension Bus 1



523630

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

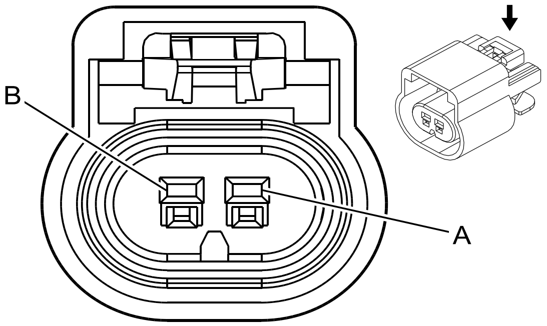
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R6E Terminating Resistor - High Speed Extension Bus 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
B	0.5	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—

R6F Terminating Resistor - High Speed Extension Bus 2



523630

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R6F Terminating Resistor - High Speed Extension Bus 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
B	0.5	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—

R12 Power Take-Off Switch Diode

—

Connector Part Information

Harness Type: Engine
OEM Connector: 12084688
Service Connector:
Description: Splice-Way Splice Splice

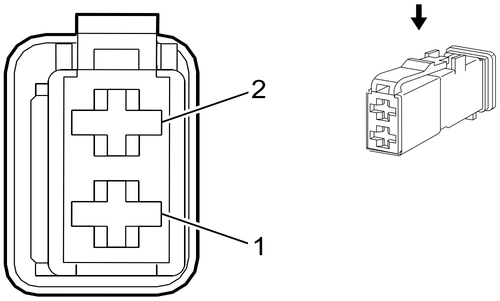
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

R12 Power Take-Off Switch Diode

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
L	—	—	5061	Left Front Fog Lamp Control	I	—
	0.75	BN/WH	6085	Power Take Off Remote Engine Start Switch Signal	I	—
R	—	—	5061	Left Front Fog Lamp Control	I	—
	0.75	BU/BN	4408	Power Take Off Enable Signal	I	—

S5 Center Console Compartment Lamp Switch



1974969

Connector Part Information

Harness Type: Floor Console
OEM Connector: 10787635
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Timer Series (NA)

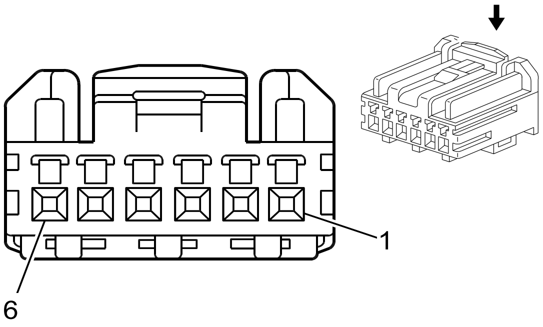
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S5 Center Console Compartment Lamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	6815	Inadvertent Power Control	I	—
2	0.5	WH/BN	6815	Inadvertent Power Control	I	—

S13D Door Lock Switch - Driver (A31)



3681331

Connector Part Information

Harness Type: Door Lock
OEM Connector: 15484551
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (BK)

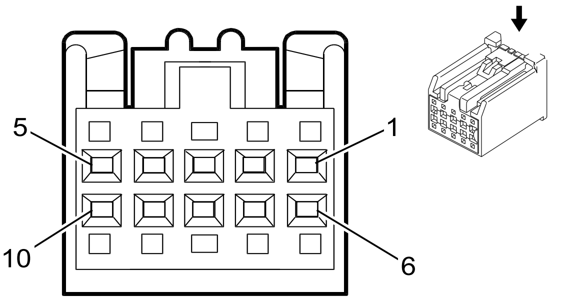
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13D Door Lock Switch - Driver (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	I	—
4	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	I	—
5	0.35	BK	1150	Ground	I	—
6	—	—	—	Not Occupied	—	—

S13D Door Lock Switch - Driver (-A31)



2180211

Connector Part Information

Harness Type: Door Lock
OEM Connector: 13815336
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series (BK)

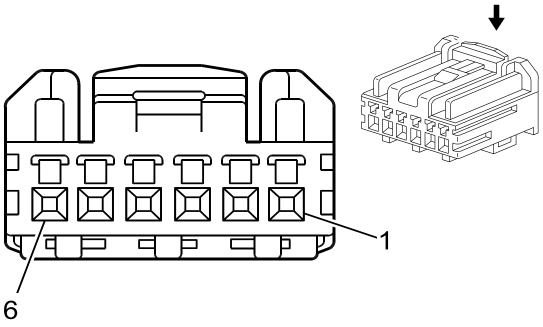
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13D Door Lock Switch - Driver (-A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1150	Ground	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	YE	6817	LED Backlight Dimming Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	I	—
7	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	I	—
8 - 10	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger (A31)



3681331

Connector Part Information

Harness Type: Door Lock
OEM Connector: 15484551
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (BK)

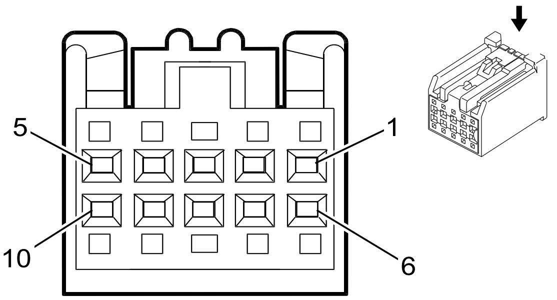
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13P Door Lock Switch - Passenger (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	I	—
4	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	I	—
5	0.35	BK	1250	Ground	I	—
6	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger (-A31)



2180211

Connector Part Information

Harness Type: Door Lock
OEM Connector: 13815336
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series (BK)

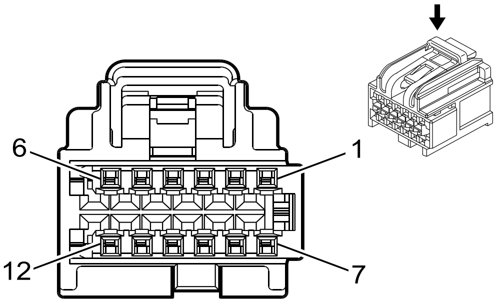
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13P Door Lock Switch - Passenger (-A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1250	Ground	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	YE	6817	LED Backlight Dimming Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	I	—
7	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	I	—
8 - 10	—	—	—	Not Occupied	—	—

S30 Headlamp Switch



2717156

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13782625
Service Connector: 19301730
Description: 12-Way F 0.64 Series (BK)

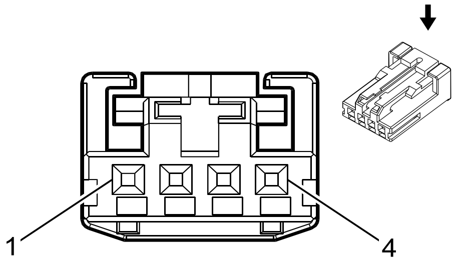
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300660	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	103	Headlamp Switch On Signal	I	—
2	0.5	YE	6817	LED Backlight Dimming Control	I	—
3	0.35	GN/BN	306	Headlamp Switch Headlamps Off Signal Control	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GN/GY	13	Headlamp Switch Park Lamp Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	BK/YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	I	—
8	0.5	BK	1850	Ground	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BU/GY	192	Front Fog Lamp Switch Signal	I	—
11	0.35	YE/GY	44	Instrument Panel Lamp Dimmer Switch Signal	I	—
12	0.35	BU/RD	1688	5V Reference	I	—

S31D Seat Heating and Cooling Switch - Driver



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13853727
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

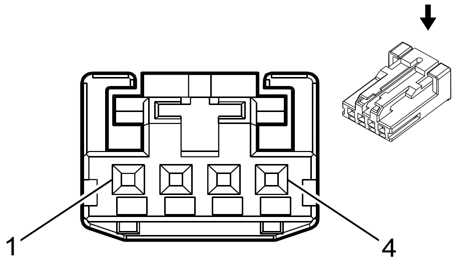
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S31D Seat Heating and Cooling Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1850	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GN/WH	7527	Local Interconnect Network Serial Data Bus 5	I	—
4	0.35	RD/GY	2840	Battery Positive Voltage	I	—

S31P Seat Heating and Cooling Switch - Passenger



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13853727
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

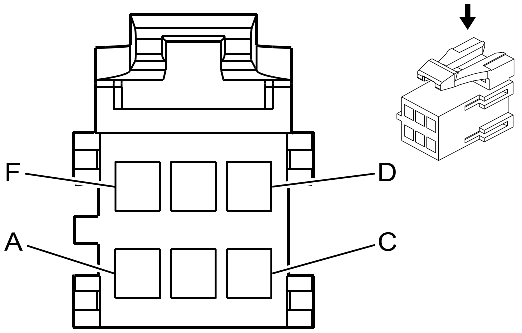
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S31P Seat Heating and Cooling Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GY	2840	Battery Positive Voltage	I	—
2	0.5	GN/WH	7527	Local Interconnect Network Serial Data Bus 5	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	BK	1850	Ground	I	—

S40 Passenger Air Bag Disable Switch



362753

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305286
Service Connector: 15306014
Description: 6-Way F 150 Metri-Pack Series (YE)

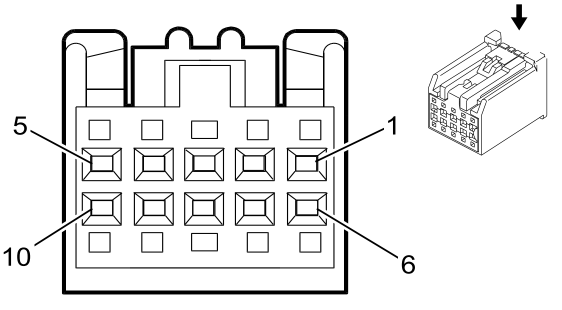
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S40 Passenger Air Bag Disable Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BU/OG	7328	Passenger IP Module Disable Switch Low Reference	I	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	VT/OG	371	Passenger IP Module Disable Switch Signal	I	—
E - F	—	—	—	Not Occupied	—	—

S47D Seat Memory Switch - Driver



2180211

Connector Part Information

Harness Type: Door Lock
OEM Connector: 13815336
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series (BK)

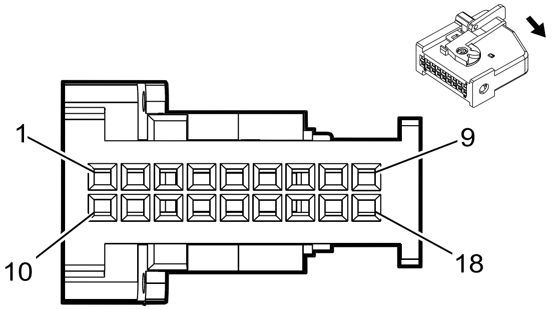
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S47D Seat Memory Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/BU	5978	Memory Switch Low Reference	I	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	BU/GN	614	Memory Seat Switch Set Signal	I	—
6	0.35	WH	615	Memory Seat Switch Signal 1	I	—
7 - 10	—	—	—	Not Occupied	—	—

S48A Multifunction Switch - Instrument Panel X1



3240103

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10820548
Service Connector: 13584100
Description: 18-Way F 0.64 Series (BK)

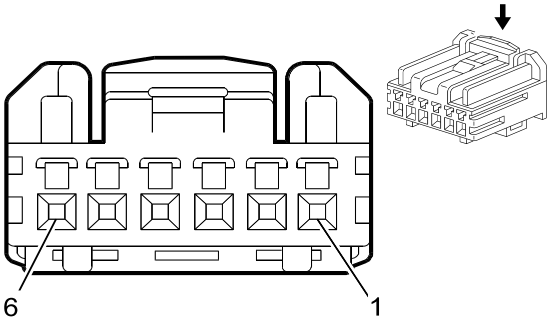
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575782	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

S48A Multifunction Switch - Instrument Panel X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	—
2	0.35	WH	6816	Indicator Dimming Control	I	—
3	0.35	BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	I	—
4	0.35	BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	I	—
5	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
6	0.35	GN/BN	5852	Rear Park Assist LED Disable Signal	I	—
7	0.5	BN/WH	1429	Standing Lamp Relay Control	I	—
8	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—
9	0.35	GY/GN	2555	Rear Park Assist Disable Signal	I	—
10	0.5	WH/BU	964	—	I	—
11	0.5	GN/GY	963	—	I	—
12	0.5	RD/WH	961	—	I	—
13	0.5	YE/WH	962	—	I	—
14	0.5	BK	1850	Ground	I	—
15	0.35	WH/GY	5285	Adjustable Pedal Switch Rearward Signal	I	—
16	0.35	GN/GY	5286	Adjustable Pedal Switch Forward Signal	I	—
17	0.35	BU/VT	1788	Traction Control Switch Signal 1	I	—
18	0.5	GY	158	Cargo Lamp Switch Signal	I	—

S48A Multifunction Switch - Instrument Panel X2



1664548

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15488869
Service Connector: 19115655
Description: 6-Way F 0.64 HCM Series (BK)

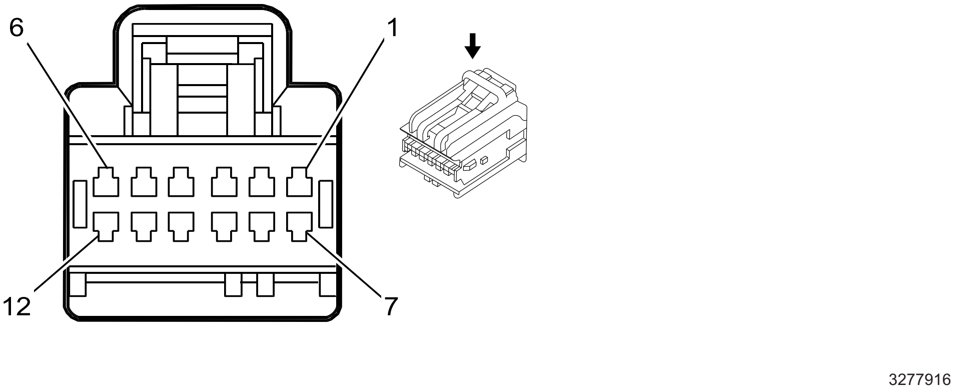
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S48A Multifunction Switch - Instrument Panel X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/GN	4311	Power Take Off Enable In Cab Switch Normally Closed Signal	I	—
2	0.35	GN/WH	488	Power Take Off Control Switch	I	—
3	0.35	VT/GN	1739	Run/Crank Ignition 1 Voltage	I	—
4	0.5	GN/YE	2081	Exhaust Brake Switch Control	I	—
5	0.35	GN/WH	3438	Exhaust Brake Switch Signal	I	—
6	—	—	—	Not Occupied	—	—

S52 Outside Rearview Mirror Switch (DL3)



Connector Part Information

Harness Type: Door Lock
OEM Connector: 13889385
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 64 Series, Sealed (BN)

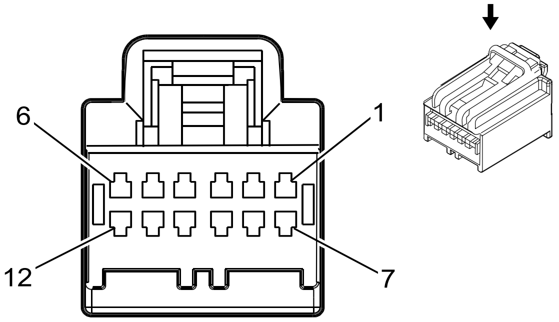
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S52 Outside Rearview Mirror Switch (DL3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/BN	3394	Driver Mirror Position Sensor Up (+) Down (-) Signal	I	—
2	0.35	VT/RD	3392	Driver Mirror Position Sensor 5V Reference	I	—
3	0.75	BK	1150	Ground	I	—
4	0.75	VT/BU	3390	Driver Mirror Motor Up (+) Down (-) Control	I	—
5	0.75	WH/GN	3412	Driver Mirror Motor Fold In Control	I	—
6	0.75	YE/BN	3391	Driver Mirror Motor Common Control	I	—
7	0.35	WH/YE	3395	Driver Mirror Position Sensor Left (-) Right (+) Signal	I	—
8	0.35	BK/BN	3393	Driver Mirror Position Sensor Low Reference	I	—
9	0.5	GN/WH	7530	Local Interconnect Network Serial Data Bus 8	I	—
10	0.75	RD/VT	1940	Battery Positive Voltage	I	—
11	0.75	BN/BK	3389	Driver Mirror Motor Right (+) Left (-) Control	I	—
12	0.75	GY/WH	3411	Driver Mirror Motor Fold Out Control	I	—

S52 Outside Rearview Mirror Switch (DL8)



3556661

Connector Part Information

Harness Type: Door Lock
OEM Connector: 13587624
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 64 Series, Sealed (GY)

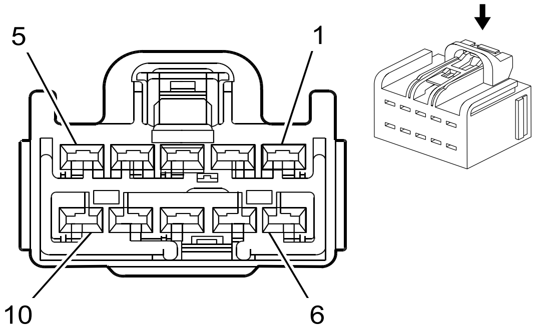
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S52 Outside Rearview Mirror Switch (DL8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/VT	3397	Passenger Mirror Motor Up (+) Down (-) Control	I	—
2	0.75	WH/GN	3412	Driver Mirror Motor Fold In Control	I	—
3	0.75	YE/BN	3391	Driver Mirror Motor Common Control	I	—
4	0.75	GN/BK	3396	Passenger Mirror Motor Right (+) Left (-) Control	I	—
5	0.75	BK	1150	Ground	I	—
6	0.35	YE	6817	LED Backlight Dimming Control	I	—
7	0.75	VT/BU	3390	Driver Mirror Motor Up (+) Down (-) Control	I	—
8	0.75	WH	3398	Passenger Mirror Motor Common Control	I	—
9	0.75	GY/WH	3411	Driver Mirror Motor Fold Out Control	I	—
10	0.75	BN/BK	3389	Driver Mirror Motor Right (+) Left (-) Control	I	—
11	—	—	—	Not Occupied	—	—
12	0.75	RD/VT	1940	Battery Positive Voltage	I	—

S64D Seat Adjuster Switch - Driver X1



1856796

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7283-6457-40
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F YESC Kaizen Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

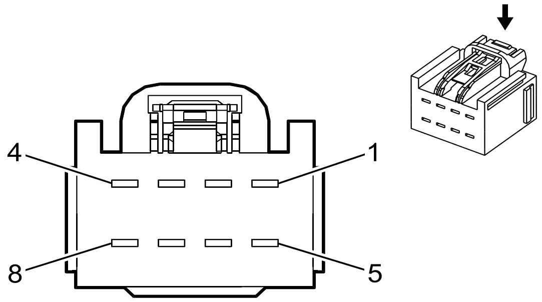
S64D Seat Adjuster Switch - Driver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5 0.5	GN/BN GN/BN	286 1518	Driver Power Seat Front Vertical Motor Up Control Power Seat Front Vertical Up Switch Signal	I I	AG1-A45 -ULT
2	2.5	BK	1150	Ground	I	—
3	1.5 0.5	YE/BU YE/BN	285 1522	Driver Power Seat Horizontal Motor Forward Control Power Seat Horizontal Forward Switch Signal	I I	AG1-A45 -ULT
4	1.5 0.5	GN/YE GY/BK	276 1269	Driver Power Seat Recline Motor Forward Control Power Seat Recline Forward Switch Signal	I I	AG1-A45 -ULT
5	1.5 0.5	BU/VT BU/VT	287 1520	Driver Power Seat Front Vertical Motor Down Control Power Seat Front Vertical Down Switch Signal	I I	AG1-A45 -ULT
6	0.35 2.5	BK RD/YE	1150 5040	Ground Battery Positive Voltage	I I	A45 AG1-A45
7	1.5 0.5	GY/GN GY/GN	284 1523	Driver Power Seat Horizontal Motor Rearward Control Power Seat Horizontal Rearward Switch Signal	I I	AG1-A45 -ULT
8	1.5 0.5	YE YE	282 1519	Driver Power Seat Rear Vertical Motor Up Control Power Seat Rear Vertical Up Switch Signal	I I	AG1-A45 -ULT
9	1.5 0.5	BU/YE GN/GY	277 1270	Driver Power Seat Recline Motor Rearward Control Power Seat Recline Rearward Switch Signal	I I	AG1-A45 -ULT

S64D Seat Adjuster Switch - Driver X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
10	1.5 0.5	GY/BU YE/BU	283 1521	Driver Power Seat Rear Vertical Motor Down Control Power Seat Rear Vertical Down Switch Signal	I I	AG1-A45 -ULT

S64D Seat Adjuster Switch - Driver X2



Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7283-3243-40
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (L-GY)

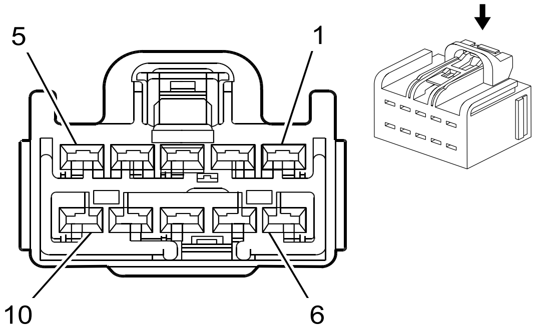
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S64D Seat Adjuster Switch - Driver X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1066	Driver Seat Lumbar Up Switch Signal	I	—
2	0.5 1.5	YE BU	1065 611	Driver Seat Lumbar Forward Switch Signal Driver Power Seat Lumbar Motor Forward Control	I I	A45 AG1-A45
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	YE/BK	1067	Driver Seat Lumbar Down Switch Signal	I	—
6	0.5 1.5	BU/VT VT	1064 610	Driver Seat Lumbar Rearward Switch Signal Driver Power Seat Lumbar Motor Rearward Control	I I	A45 AG1-A45
7 - 8	—	—	—	Not Occupied	—	—

S64P Seat Adjuster Switch - Passenger X1



1856796

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 7283-6457-40
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F YESC Kaizen Series (L-GY)

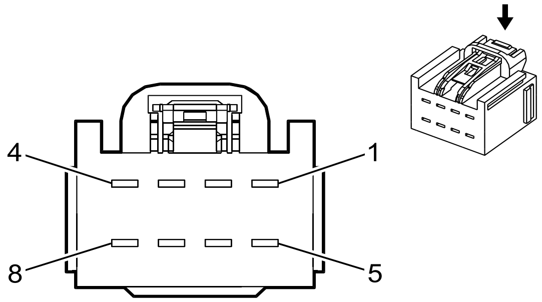
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S64P Seat Adjuster Switch - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	—
2	1.5	GN	76	Passenger Power Seat Recline Motor Forward Control	I	—
3	1.5	YE/WH	296	Passenger Power Seat Horizontal Motor Forward Control	I	—
4	1.5	GN/VT	297	Passenger Power Seat Front Vertical Motor Up Control	I	—
5	2.5	BK	1250	Ground	I	—
6	1.5	BU/WH	289	Passenger Power Seat Rear Vertical Motor Down Control	I	—
7	1.5	BU/BN	77	Passenger Power Seat Recline Motor Rearward Control	I	—
8	1.5	GN/WH	288	Passenger Power Seat Rear Vertical Motor Up Control	I	—
9	1.5	YE/BU	290	Passenger Power Seat Horizontal Motor Rearward Control	I	—
10	2.5	RD/BN	1440	Battery Positive Voltage	I	—

S64P Seat Adjuster Switch - Passenger X2



2832199

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 7283-3243-40
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (L-GY)

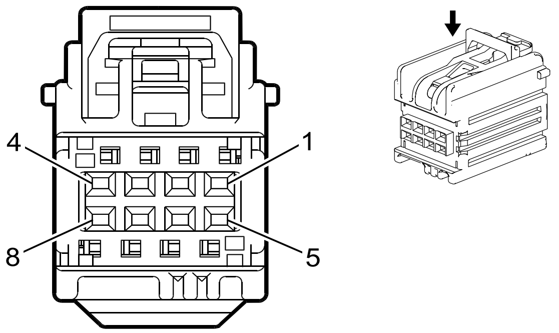
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S64P Seat Adjuster Switch - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	1.5	VT	210	Passenger Power Seat Lumbar Motor Rearward Control	I	—
4	1.5	BN/YE	793	Passenger Power Seat Lumbar Motor Up Control	I	—
5	—	—	—	Not Occupied	—	—
6	1.5	BU	211	Passenger Power Seat Lumbar Motor Forward Control	I	—
7	—	—	—	Not Occupied	—	—
8	1.5	BU/YE	792	Passenger Power Seat Lumbar Motor Down Control	I	—

S76 Trailer Brake Control Switch



1716517

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13518475
Service Connector: 13576542
Description: 8-Way F YESC Kaizen Series (BK)

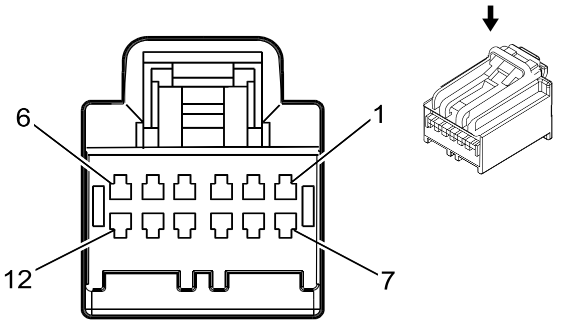
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S76 Trailer Brake Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BU/RD	7632	Integrated Trailer Brake Controller Switch 5V Reference	I	—
4	0.5	YE	7635	Integrated Trailer Brake Controller Manual Apply Signal	I	—
5	0.5	BN	7634	Integrated Trailer Brake Controller Redundant Manual Apply Signal	I	—
6	0.5	GN/BK	7633	Integrated Trailer Brake Controller User Gain Signal	I	—
7	0.35	YE	6817	LED Backlight Dimming Control	I	—
8	0.5	BK/BN	7631	Integrated Trailer Brake Controller Switch Low Reference	I	—

S77 Transfer Case Shift Control Switch (-NQG)



3556661

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13587624
Service Connector: 19151154
Description: 12-Way F 64 Series, Sealed (GY)

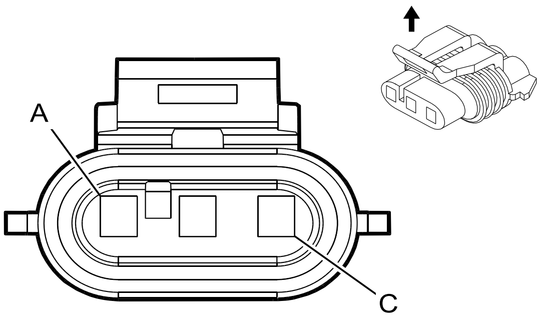
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

S77 Transfer Case Shift Control Switch (-NQG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	VT/BN	300	Run Ignition 3 Voltage	I	—
3	0.35	BN	1560	Neutral Indicator Control	I	—
4	0.35	WH	6816	Indicator Dimming Control	I	—
5	0.35	YE	6817	LED Backlight Dimming Control	I	—
6	0.5	BK	1050	Ground	I	—
7	0.35	GY/GN	1561	AWD Indicator Control	I	—
8	0.35	GN/BK	1563	2 HI Indicator Control	I	—
9	0.35	BN/BK	1566	4 HI Indicator Control	I	—
10	0.35	VT/WH	1565	4 LO Indicator Control	I	—
11	0.35	GY/RD	6029	Four Wheel Drive Mode Switch 5V Reference	I	—
12	0.35	BU/YE	1693	Four Wheel Drive Switch Signal	I	—

S77 Transfer Case Shift Control Switch (NQG/LV3)



516611

Connector Part Information

Harness Type: Engine
OEM Connector: 12059595
Service Connector: 13585316
Description: 3-Way F 150 Metri-Pack Series, Sealed (BK)

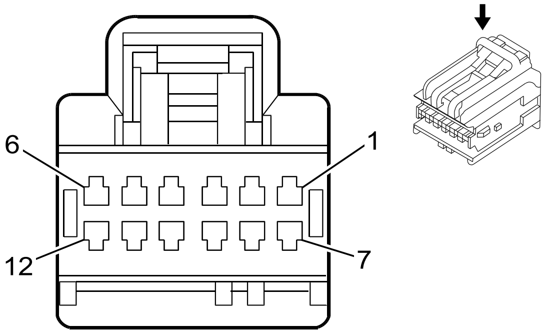
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S77 Transfer Case Shift Control Switch (NQG/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BK	550	Ground	I	—
B	0.5	GY/BK	1694	Four Wheel Drive Low Signal	I	—
C	0.5	GY/BK	1570	Front Axle Actuator Control	I	—

S79D Window Switch - Driver



1664569

Connector Part Information

Harness Type: Door Lock
OEM Connector: 13551678
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 0.64 Series (BK)

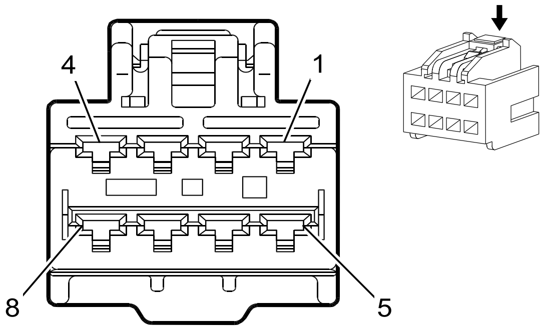
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79D Window Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1150	Ground	I	—
2	0.35	GN/VT	7628	Power Window Motor Left Front Express Control	I	—
3	0.35	GY	1136	Power Window Master Switch Left Front Down Signal	I	—
4	0.5	RD/VT	1940	Battery Positive Voltage	I	—
5	0.5	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	I	—
6	0.35	GN/WH	1300	Power Window Master Switch Left Front Up Signal	I	—
7	0.35	WH/VT	3270	Driver Door Lock Motor Status Signal	I	—
8	0.35	BU/VT	1124	Door Lock Key Switch Unlock Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	YE/BN	3265	Child Security Lock Switch Signal	I	—
11	0.35	WH	6816	Indicator Dimming Control	I	—
12	0.35	GY	5697	Child Lockout Indicator Control	I	—

S79LR Window Switch - Left Rear



1653389

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (BK)

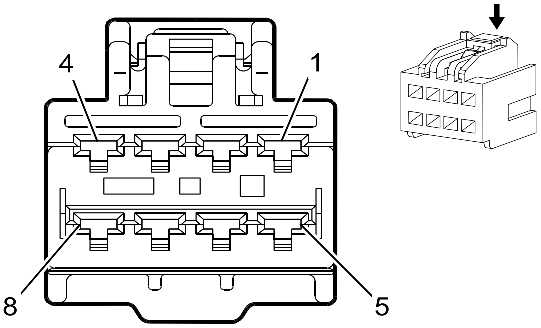
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79LR Window Switch - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	6135	Local Interconnect Network Serial Data Bus 4	I	—
2	0.35	GY/WH	747	Left Rear Door Ajar Switch Signal	I	—
3	0.5	BK	1150	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	2.5	BK	1150	Ground	I	—
6	2.5	BU/VT	668	Power Window Motor Left Rear Up Control	I	—
7	2.5	YE/BU	669	Power Window Motor Left Rear Down Control	I	—
8	2.5	RD/BU	1842	Battery Positive Voltage	I	—

S79P Window Switch - Passenger X1



1653389

Connector Part Information

Harness Type: Door Lock
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (BK)

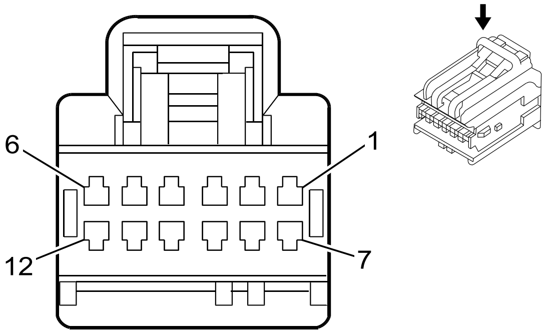
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79P Window Switch - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1250	Ground	I	—
2	2.5	GN/GY	3387	Power Window Motor Passenger Up Control	I	—
3	2.5	YE/BU	3388	Power Window Motor Passenger Down Control	I	—
4	2.5	RD/WH	1340	Battery Positive Voltage	I	—
5	0.5	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	GY	746	Right Front Door Ajar Switch Signal	I	—

S79P Window Switch - Passenger X2



1664569

Connector Part Information

Harness Type: Door Lock
OEM Connector: 13551678
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 0.64 Series (BK)

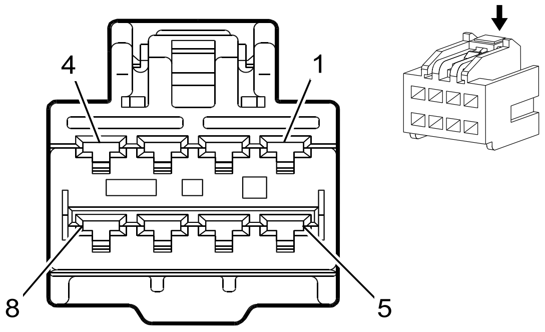
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79P Window Switch - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/WH	3413	Passenger Mirror Motor Fold Out Control	I	—
2	0.75	YE/VT	3397	Passenger Mirror Motor Up (+) Down (-) Control	I	—
3	0.75	WH	3398	Passenger Mirror Motor Common Control	I	—
4	0.35	YE/RD	3399	Passenger Mirror Position Sensor 5V Reference	I	—
5	0.35	BU/YE	3401	Passenger Mirror Position Sensor Up (+) Down (-) Signal	I	—
6	0.35	BK/GN	3400	Passenger Mirror Position Sensor Low Reference	I	—
7	0.75	BU/GY	3414	Passenger Mirror Motor Fold In Control	I	—
8	0.75	GN/BK	3396	Passenger Mirror Motor Right (+) Left (-) Control	I	—
9	0.5	GN/WH	7530	Local Interconnect Network Serial Data Bus 8	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	VT/WH	3403	Passenger Mirror Position Sensor Left (-) Right (+) Signal	I	—
12	—	—	—	Not Occupied	—	—

S79RR Window Switch - Right Rear



1653389

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series (BK)

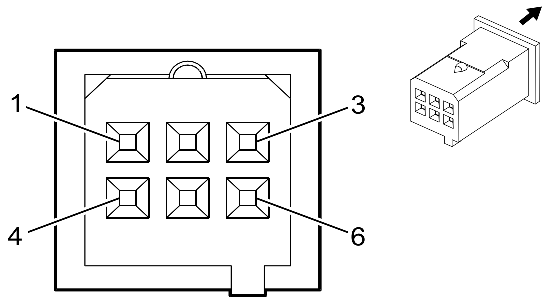
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79RR Window Switch - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	6135	Local Interconnect Network Serial Data Bus 4	I	—
2	0.35	GY/WH	748	Right Rear Door Ajar Switch Signal	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	2.5	BK	1250	Ground	I	—
6	2.5	BU/GY	670	Power Window Motor Right Rear Up Control	I	—
7	2.5	GN/BK	671	Power Window Motor Right Rear Down Control	I	—
8	2.5	RD/WH	1340	Battery Positive Voltage	I	—

S135 Rollover Protection Disable Switch



2236371

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13548426
Service Connector: 19367512
Description: 6-Way F 0.64 Micro-Quadlock Series (NA)

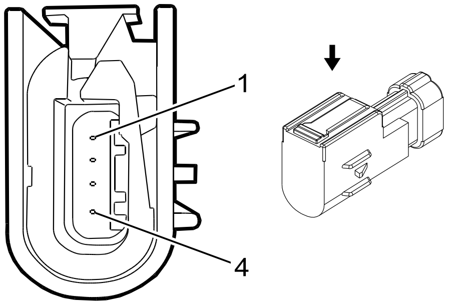
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S135 Rollover Protection Disable Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/OG	371	Passenger IP Module Disable Switch Signal	I	—
2	0.35	BU/OG	7328	Passenger IP Module Disable Switch Low Reference	I	—
3 - 6	—	—	—	Not Occupied	—	—

S164L Rear Compartment Lid Release Switch - Left (ZYD)



2179794

Connector Part Information

Harness Type: Left Bin Jumper
OEM Connector: 19153433
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 0.64 Series, Sealed (BK)

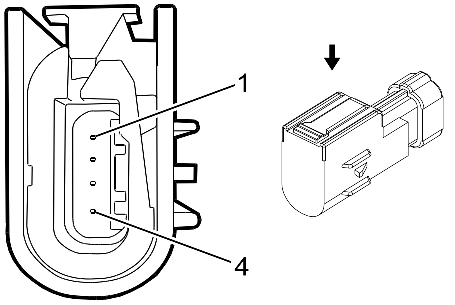
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S164L Rear Compartment Lid Release Switch - Left (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	BK	1450	Ground	I	—
4	0.5	YE	9003	Low Refrence	I	—

S164R Rear Compartment Lid Release Switch - Right (ZYD)



2179794

Connector Part Information

Harness Type: Right Bin Jumper
OEM Connector: 19153433
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 0.64 Series, Sealed (BK)

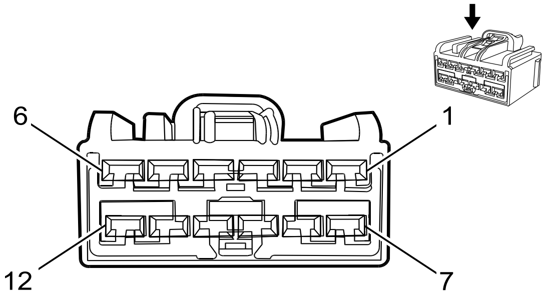
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S164R Rear Compartment Lid Release Switch - Right (ZYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	BK	1450	Ground	I	—
4	0.5	GY/GN	6190	Lift Glass/Rear Compartment Lid Exterior Release Signal	I	—

T1 Accessory DC/AC Power Inverter Module



2231648

Connector Part Information

Harness Type: Instrument Panel Extension
OEM Connector: 10846814
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 2.8 Kaizen Series (L-GY)

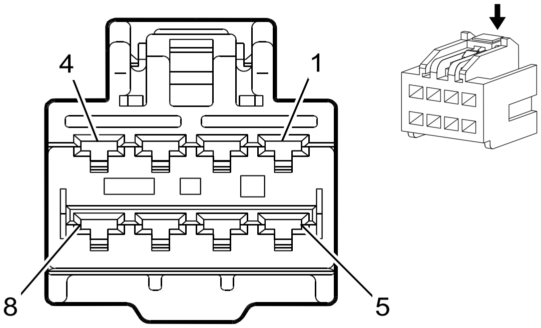
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T1 Accessory DC/AC Power Inverter Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	1.5	BK	5683	120 V AC Phase A	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	2.5	RD/GY	4140	Battery Positive Voltage	I	—
7	1.5	RD	5684	120 V AC Phase B	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.35	Bare	514	Low Reference	II	—
11	2.5	BK	1050	Ground	I	—
12	0.35	BU/BN	6807	DC To AC Inverter Control	II	—

T3 Audio Amplifier X1 (UQA/D07)



1653389

Connector Part Information

Harness Type: Body
OEM Connector: 15491286
Service Connector: 13580111
Description: 8-Way F 2.8 Series (BK)

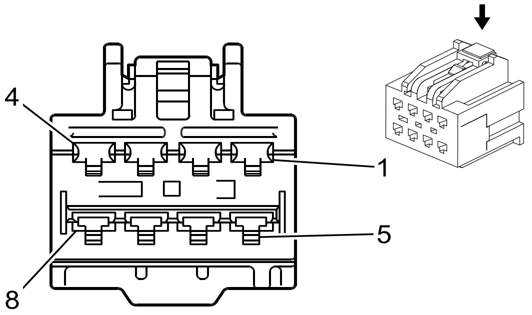
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T3 Audio Amplifier X1 (UQA/D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU/GY	346	Left/Rear Subwoofer Speaker Control (+)	I	—
2	1	YE	200	Right Front Speaker Control (+) 1	I	—
3	1	BU	201	Left Front Speaker Control (+) 1	I	—
4	2.5	RD/YE	3740	Battery Positive Voltage	I	—
5	2.5	GY/BK	315	Right Subwoofer Speaker (-) Low Reference	I	—
6	1	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
7	1	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
8	2.5	BK	2550	Ground	I	—

T3 Audio Amplifier X1 (UQA/-D07)



1715234

Connector Part Information

Harness Type: Body
OEM Connector: 15491289
Service Connector: 19367530
Description: 8-Way F 2.8 Series (L-GY)

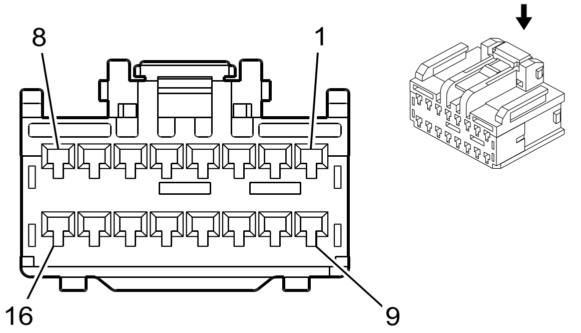
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T3 Audio Amplifier X1 (UQA/-D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	200	Right Front Speaker Control (+) 1	I	—
2	—	—	—	Not Occupied	—	—
3	2.5	BU	201	Left Front Speaker Control (+) 1	I	—
4	2.5	RD/YE	3740	Battery Positive Voltage	I	—
5	2.5	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
6	—	—	—	Not Occupied	—	—
7	2.5	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
8	2.5	BK	2550	Ground	I	—

T3 Audio Amplifier X2



1653404

Connector Part Information

Harness Type: Body
OEM Connector: 15489823
Service Connector: 15134091
Description: 16-Way F 1.5 Series (BK)

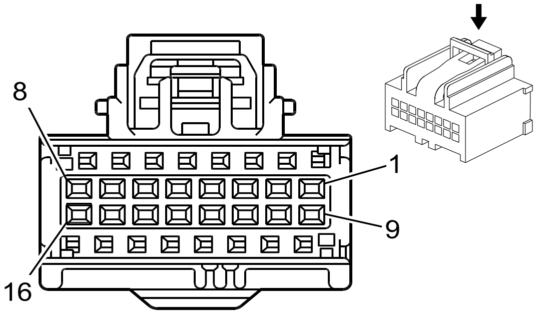
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575790	J-35616-2A (GY)	J-38125-553	15496302	Delphi 5	2	A

T3 Audio Amplifier X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.75	BN/GN	1852	Right Front Tweeter Speaker Control (+)	I	—
5	0.75	YE/BU	1856	Left Front Tweeter Speaker Control (+)	I	—
6	1	WH	46	Right Rear Speaker Control (+)	I	—
7	1	GN	199	Left Rear Speaker Control (+)	I	—
8 - 11	—	—	—	Not Occupied	—	—
12	0.75	VT/BN	1952	Right Front Tweeter Speaker (-) Low Reference	I	—
13	0.75	YE/GY	1956	Left Front Tweeter Speaker (-) Low Reference	I	—
14	1	BU/BK	115	Right Rear Speaker Signal (-)	I	—
15	1	GN/BK	116	Left Rear Speaker Signal (-)	I	—
16	—	—	—	Not Occupied	—	—

T3 Audio Amplifier X3



1653409

Connector Part Information

Harness Type: Body
OEM Connector: 15491285
Service Connector: 15136073
Description: 16-Way F 0.64 Kaizen Series (BK)

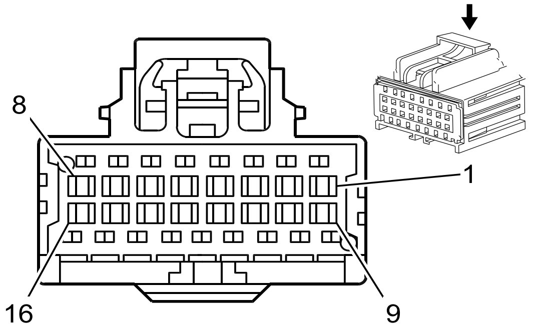
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

T3 Audio Amplifier X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
2	0.35	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	GN/BN	3005	Noise Reduction Microphone 1 Signal	I	—
5	0.35	BU/YE	3006	Noise Reduction Microphone 2 Signal	I	—
6	0.35	GY/BU	3007	Noise Reduction Microphone 3 Signal	I	—
7 - 11	—	—	—	Not Occupied	—	—
12	0.35	GN/BK	3008	Noise Reduction Microphone 1 Low Reference	I	—
13	0.35	BU/BK	3009	Noise Reduction Microphone 2 Low Reference	I	—
14	0.35	GY/BN	3010	Noise Reduction Microphone 3 Low Reference	I	—
15 - 16	—	—	—	Not Occupied	—	—

T3 Audio Amplifier X4



1664488

Connector Part Information

Harness Type: Body
OEM Connector: 15466054
Service Connector: 15136074
Description: 16-Way F 0.64 Kaizen Series (BN)

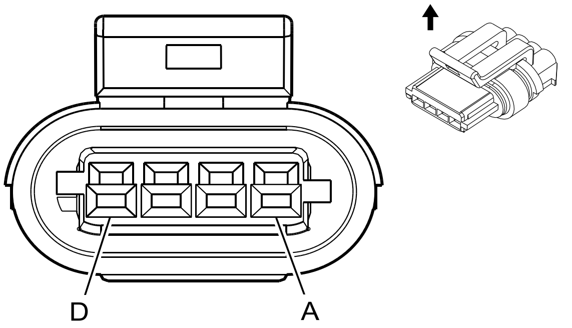
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

T3 Audio Amplifier X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	WH/GN	3997	MOST Serial Data (-)	I	—
4	0.5	GY/VT	3998	MOST Serial Data (+)	I	—
5	0.5	YE	3997	MOST Serial Data (-)	I	—
6	0.5	GN	3998	MOST Serial Data (+)	I	—
7 - 13	—	—	—	Not Occupied	—	—
14	0.35	WH/VT	3999	MOST Control	I	—
15 - 16	—	—	—	Not Occupied	—	—

T8A Ignition Coil 1 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

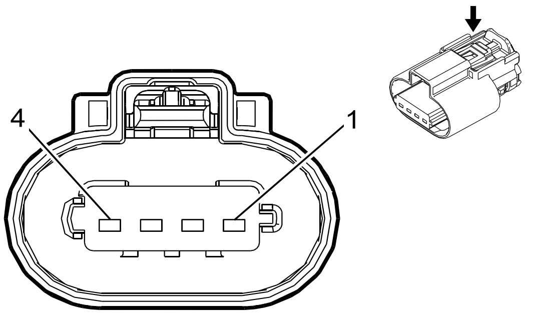
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8A Ignition Coil 1 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	VT	2121	Ignition Control 1	I	—
D	0.8	PK	39	Run/Crank Ignition 1 Voltage	I	—

T8A Ignition Coil 1 (LV3/L83/L86/L8B)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19301722
Description: 4-Way F 150 MX Series, Sealed (BK)

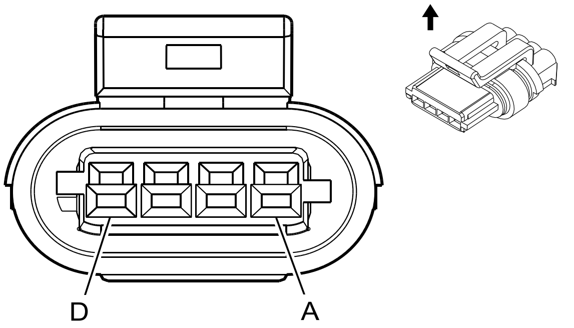
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8A Ignition Coil 1 (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU/VT	2121	Ignition Control 1	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8B Ignition Coil 2 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

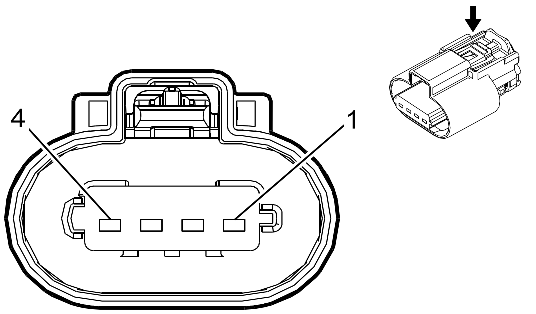
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8B Ignition Coil 2 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	RD	2127	Ignition Control 7	I	—
D	0.8	PK	39	Run/Crank Ignition 1 Voltage	I	—

T8B Ignition Coil 2 (LV3/L83/L86/L8B)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19301722
Description: 4-Way F 150 MX Series, Sealed (BK)

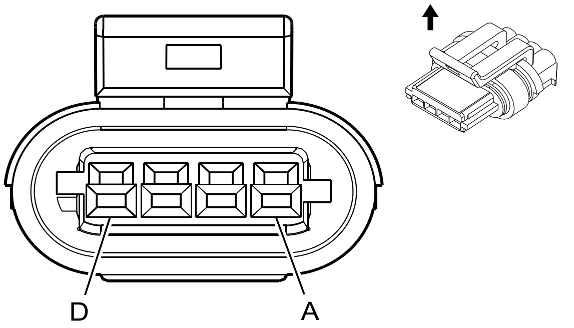
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8B Ignition Coil 2 (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BU/WH	2122	Ignition Control 2	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T8C Ignition Coil 3 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

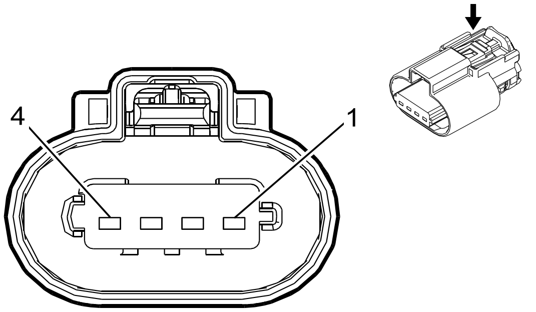
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8C Ignition Coil 3 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	BU	2123	Ignition Control 3	I	—
D	0.8	PK	39	Run/Crank Ignition 1 Voltage	I	—

T8C Ignition Coil 3 (LV3/L83/L86/L8B)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19301722
Description: 4-Way F 150 MX Series, Sealed (BK)

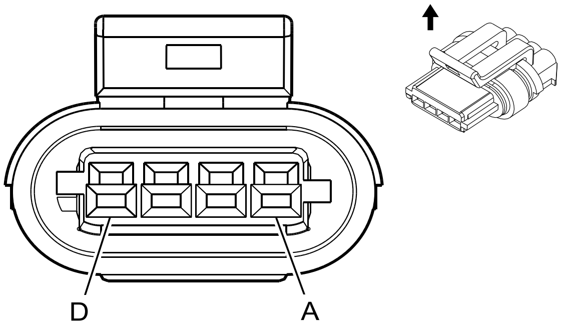
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8C Ignition Coil 3 (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	GN/BU	2123	Ignition Control 3	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8D Ignition Coil 4 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

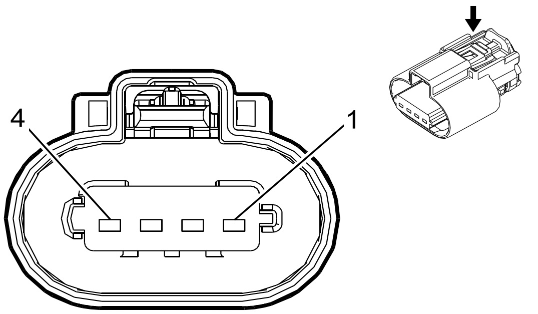
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8D Ignition Coil 4 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	GN	2125	Ignition Control 5	I	—
D	0.8	PK	39	Run/Crank Ignition 1 Voltage	I	—

T8D Ignition Coil 4 (LV3/L83/L86/L8B)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19301722
Description: 4-Way F 150 MX Series, Sealed (BK)

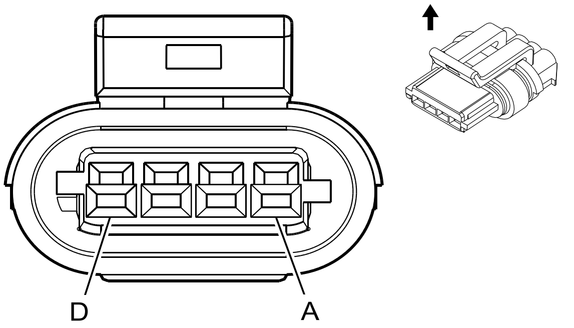
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8D Ignition Coil 4 (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	YE/BU	2124	Ignition Control 4	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T8E Ignition Coil 5 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

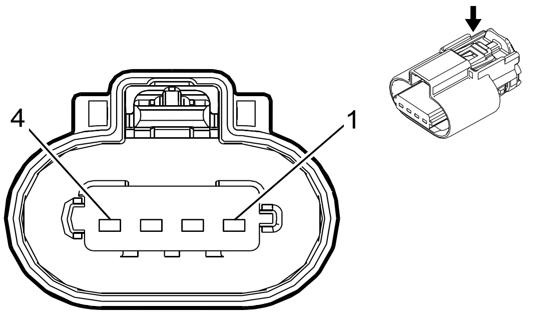
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8E Ignition Coil 5 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	GN	2125	Ignition Control 5	I	—
D	0.8	PK	39	Run/Crank Ignition 1 Voltage	I	—

T8E Ignition Coil 5 (LV3/L83/L86/L8B)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19301722
Description: 4-Way F 150 MX Series, Sealed (BK)

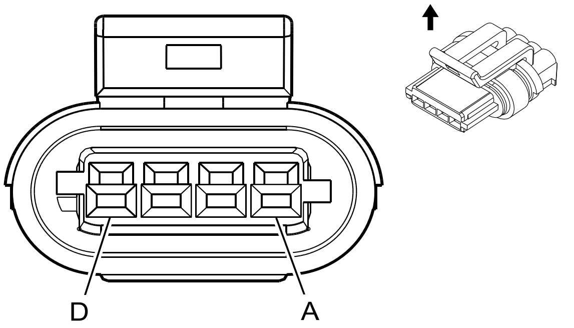
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8E Ignition Coil 5 (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU/GY	2125	Ignition Control 5	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8F Ignition Coil 6 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

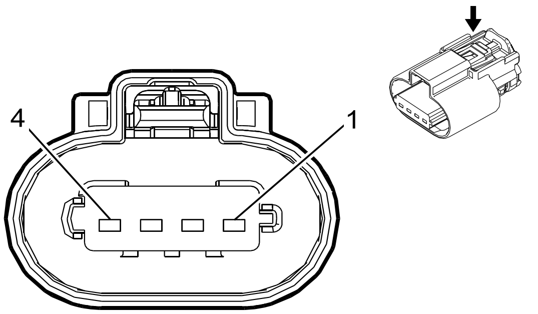
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8F Ignition Coil 6 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	BU	2123	Ignition Control 3	I	—
D	0.8	PK	39	Run/Crank Ignition 1 Voltage	I	—

T8F Ignition Coil 6 (LV3/L83/L86/L8B)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19301722
Description: 4-Way F 150 MX Series, Sealed (BK)

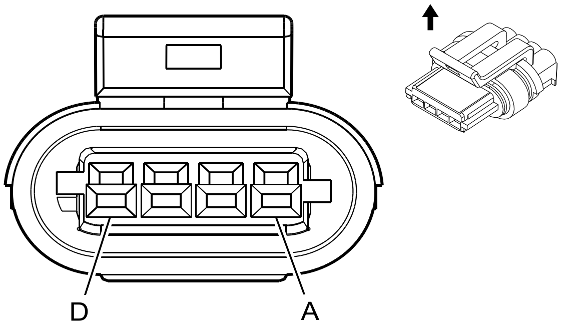
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8F Ignition Coil 6 (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BN/BU	2126	Ignition Control 6	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T8G Ignition Coil 7 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

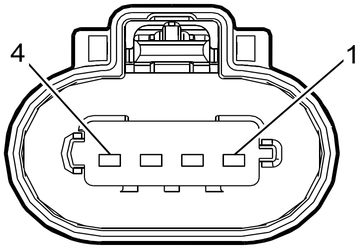
Terminal Part Information

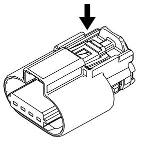
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8G Ignition Coil 7 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	RD	2127	Ignition Control 7	I	—
D	0.8	PK	39	Run/Crank Ignition 1 Voltage	I	—

T8G Ignition Coil 7 (LV3/L83/L86/L8B)





3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19301722
Description: 4-Way F 150 MX Series, Sealed (BK)

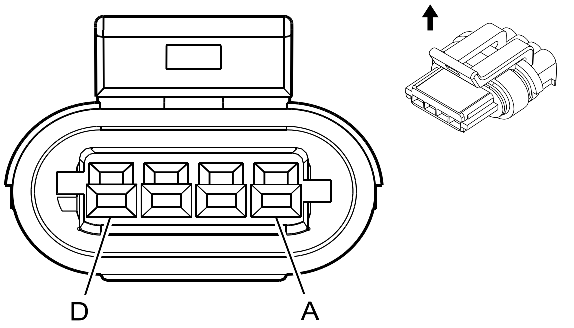
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8G Ignition Coil 7 (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	GN/GY	2127	Ignition Control 7	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8H Ignition Coil 8 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

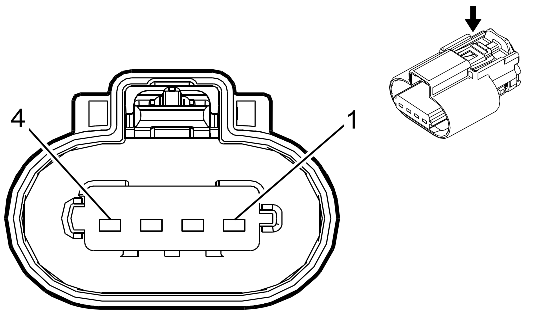
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8H Ignition Coil 8 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	VT	2121	Ignition Control 1	I	—
D	0.8	PK	39	Run/Crank Ignition 1 Voltage	I	—

T8H Ignition Coil 8 (LV3/L83/L86/L8B)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19301722
Description: 4-Way F 150 MX Series, Sealed (BK)

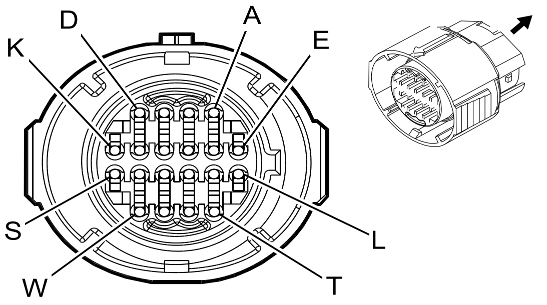
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8H Ignition Coil 8 (LV3/L83/L86/L8B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	VT/WH	2128	Ignition Control 8	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T12 Automatic Transmission Assembly



1922568

Connector Part Information

Harness Type: Engine
OEM Connector: 13603424
Service Connector: 13503285
Description: 20-Way F 100W Micro-Pack Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579969	J-35616-6 (BN)	J-38125-33	12084913	Delphi 5	W	W
II	19301406	J-35616-6 (BN)	J-38125-33	12084912	Delphi 5	W	W

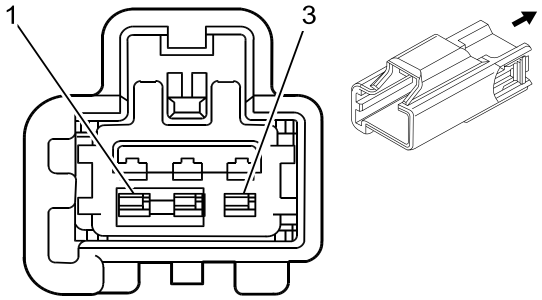
T12 Automatic Transmission Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH/GN	1222	1 Shift Solenoid Valve Control	II	—
B	0.75	YE/BK	1223	2 Shift Solenoid Valve Control	II	—
C	0.75	WH/BN	2527	Shift Solenoid Control 5	II	—
D	0.75	VT/GY	1224	Transmission Fluid Pressure Switch Signal Bit 1	II	—
E	0.75	WH/BN	1226	Transmission Fluid Pressure Switch Signal Bit 3	II	—
F	0.75	GN/VT	1225	Transmission Fluid Pressure Switch Signal Bit 2	II	—
G	0.75	BN/WH	585	Transmission Oil Temperature Sensor Signal	II	—
H	0.75	BK/BN	586	Transmission Oil Temperature Sensor Low Reference	II	—
J	0.75	GY	6402	Clutch C Control	II	—
K	0.75	GN/BK	2529	Transmission Fluid Pressure Switch Signal Bit 4	II	—
L	0.75	GY/BN	6388	Transmission High Side Driver 2 Signal	II	—
M	0.75	BN	6400	Clutch A Control	II	—
N	0.75	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	II	—
P	0.75	WH	4508	Transmission Clutch G Control	II	—
R	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
S	0.75	BU	6401	Clutch B Control	II	—
T	0.5	WH/BK	5983	PRNDL C Signal	I	—
U	0.5	GY/BN	5982	PRNDL B Signal	I	—

T12 Automatic Transmission Assembly (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
V	0.5	VT/WH	5981	PRNDL A Signal	I	—
W	0.5	GY/WH	4168	PRNDL P Signal	I	—

T22 Mobile Device Wireless Charger Module (K4C)



1787800

Connector Part Information

Harness Type: Floor Console
OEM Connector: 10846803
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way M 1.5 YESC Kaizen Series (L-GY)

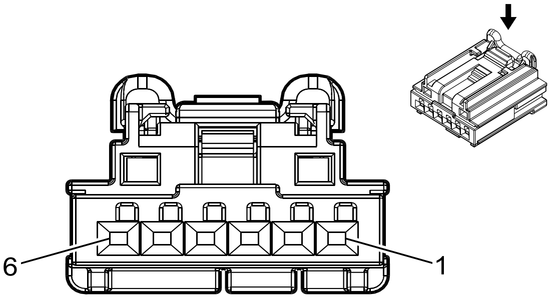
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T22 Mobile Device Wireless Charger Module (K4C)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/YE	43	Accessory Ignition Voltage	I	—
2	0.75	BK	1050	Ground	I	—
3	0.35	GN	4512	Wireless Charging System Charge Indicator Control	I	—

T22 Mobile Device Wireless Charger Module (-K4C)



3960313

Connector Part Information

Harness Type: Floor Console
OEM Connector: 13920633
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series (BK)

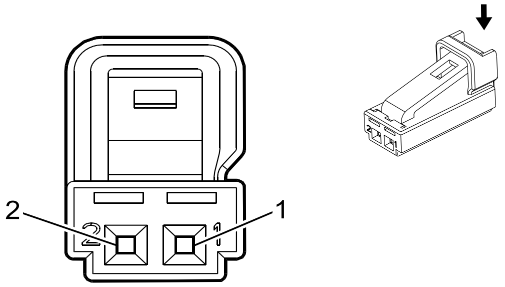
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T22 Mobile Device Wireless Charger Module (-K4C)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/YE	43	Accessory Ignition Voltage	I	—
2	0.75	BK	1050	Ground	I	—
3	0.35	GN	4512	Wireless Charging System Charge Indicator Control	I	—
4 - 6	—	—	—	Not Occupied	—	—

X21 Manual Service Disconnect Receptacle X1



4073789

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 10865735
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Micro-Quadlock Series (BK)

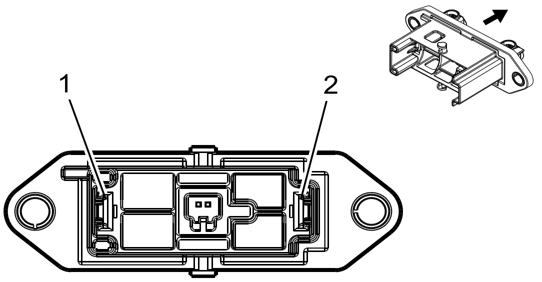
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X21 Manual Service Disconnect Receptacle X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	5087	High Voltage Interlock Loop Signal 1	I	—
2	0.5	BK/BN	5088	High Voltage Interlock Loop Low Reference 1	I	—

X21 Manual Service Disconnect Receptacle X2 (HP5)



Connector Part Information

Harness Type: High Voltage Battery Manual Service Disconnect
OEM Connector: 33213213
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F MSD 125 Receptacle (BK)

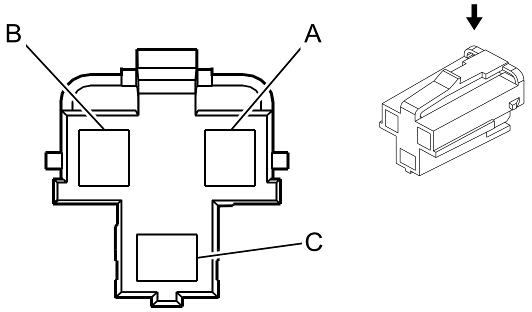
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X21 Manual Service Disconnect Receptacle X2 (HP5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	12	OG	3970	High Voltage Battery 4 (+)	I	—
2	12	OG	3970	High Voltage Battery 4 (+)	I	—

X80D Accessory Power Receptacle - Center Console Compartment (AE7/AZ3)



362748

Connector Part Information

Harness Type: Center Seat
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series (GY)

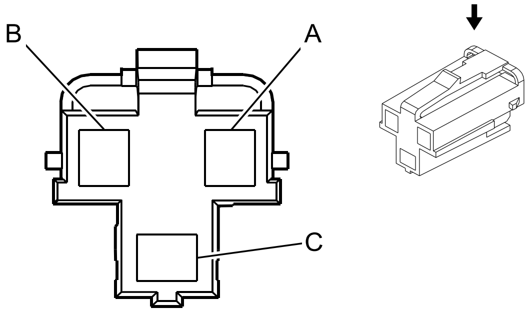
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80D Accessory Power Receptacle - Center Console Compartment (AE7/AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT/YE	243	Accessory Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1250	Ground	I	—

X80D Accessory Power Receptacle - Center Console Compartment (D07)



362748

Connector Part Information

Harness Type: Floor Console
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series (GY)

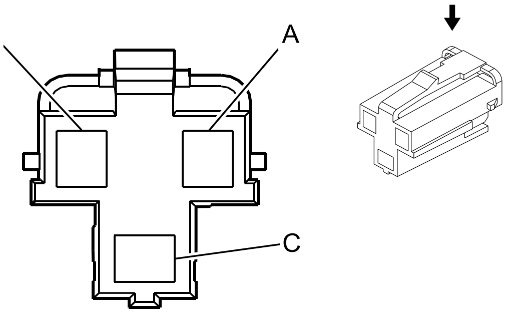
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80D Accessory Power Receptacle - Center Console Compartment (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT/YE	143	Accessory Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80E Accessory Power Receptacle - Center Seat



362748

Connector Part Information

Harness Type: Center Seat
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series (GY)

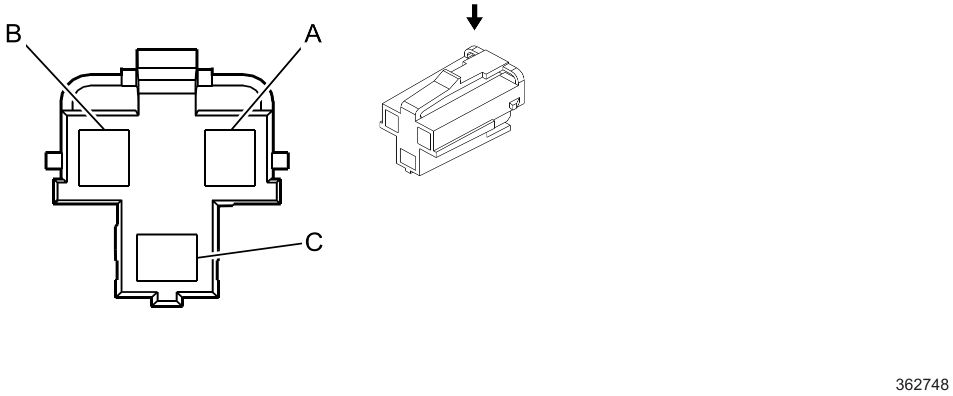
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80E Accessory Power Receptacle - Center Seat

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT/YE	143	Accessory Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1250	Ground	I	—

X80G Accessory Power Receptacle - Instrument Panel



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

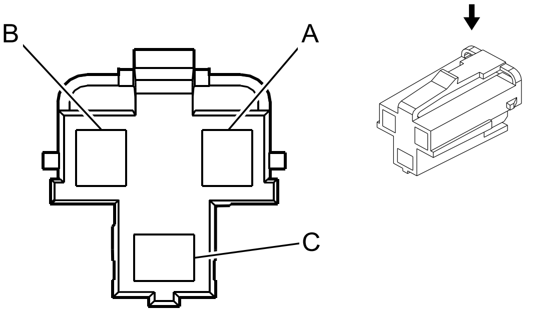
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80G Accessory Power Receptacle - Instrument Panel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/BN	4240	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80J Accessory Power Receptacle - Instrument Panel 1



362748

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

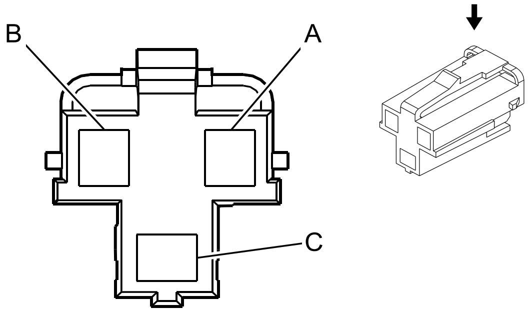
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80J Accessory Power Receptacle - Instrument Panel 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/WH	1040	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80K Accessory Power Receptacle - Instrument Panel 2



362748

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

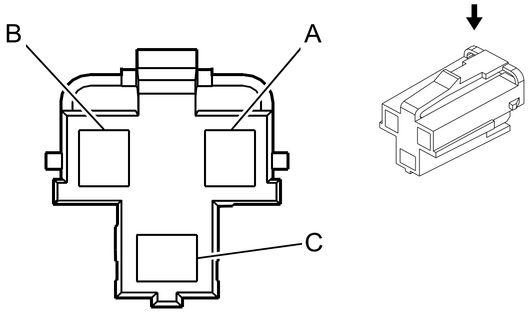
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80K Accessory Power Receptacle - Instrument Panel 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/BN	4240	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80L Accessory Power Receptacle - Center Console Rear



362748

Connector Part Information

Harness Type: Floor Console
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series (GY)

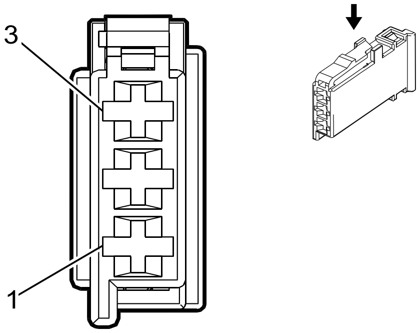
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80L Accessory Power Receptacle - Center Console Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT/YE	243	Accessory Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X81 Accessory Power Receptacle - 110V AC X1



2039656

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

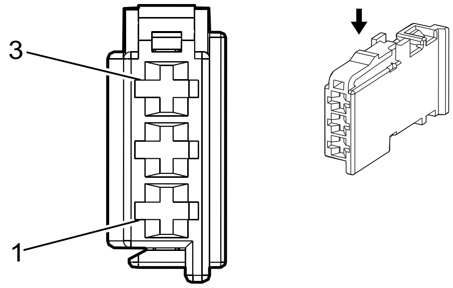
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X81 Accessory Power Receptacle - 110V AC X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/BN	300	Run Ignition 3 Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BK	5683	120 V AC Phase A	I	—

X81 Accessory Power Receptacle - 110V AC X2



2236412

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed (GY)

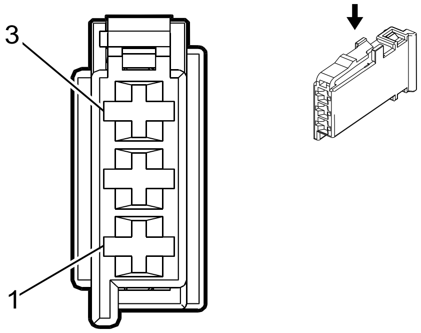
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X81 Accessory Power Receptacle - 110V AC X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/BN	6807	DC To AC Inverter Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	RD	5684	120 V AC Phase B	I	—

X81B Accessory Power Receptacle - 220V AC X1



2039656

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

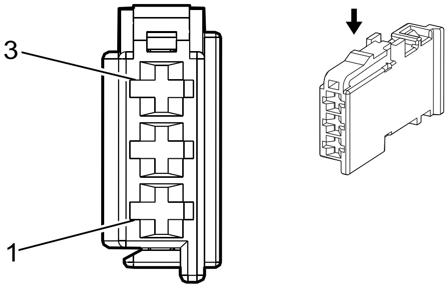
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X81B Accessory Power Receptacle - 220V AC X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/BN	300	Run Ignition 3 Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BK	5683	120 V AC Phase A	I	—

X81B Accessory Power Receptacle - 220V AC X2



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed (GY)

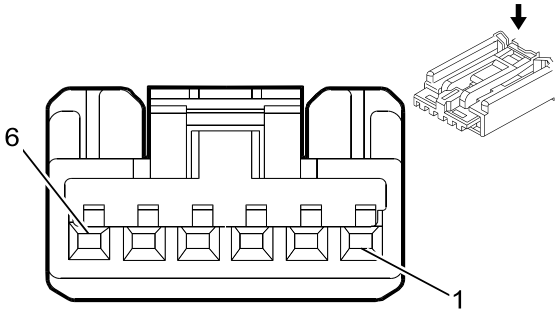
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X81B Accessory Power Receptacle - 220V AC X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/BN	6807	DC To AC Inverter Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	RD	5684	120 V AC Phase B	I	—

X82 Audio/Video Input Adapter X1



1862240

Connector Part Information

Harness Type: Floor Console
OEM Connector: 13595476
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Kaizen Series (BK)

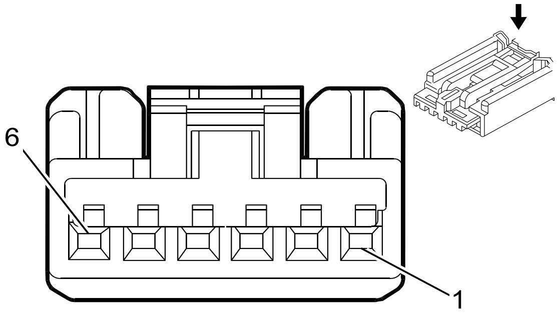
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X82 Audio/Video Input Adapter X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/WH	3355	Left Rear Seat Audio Headphone Signal	I	—
2	0.35	BN/GY	3357	Right Rear Seat Audio Headphone Signal	I	—
3	0.35	BU/VT	3356	Rear Seat Audio Headphone Common Signal	I	—
4	0.35	BK	2550	Ground	I	—
5	—	—	—	Not Occupied	—	—
6	0.75	RD/VT	340	Battery Positive Voltage	I	—

X83 Auxiliary Audio Input X1 (AE7/AZ3)



1862240

Connector Part Information

Harness Type: Center Seat
OEM Connector: AIT2PB-06-1AK
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Kaizen Series (BK)

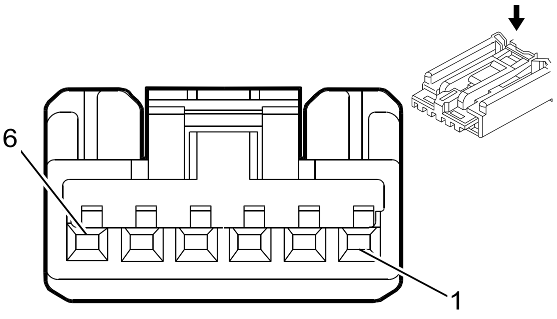
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X83 Auxiliary Audio Input X1 (AE7/AZ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	5839	Left Auxiliary Audio Signal 2	I	—
2	0.35	GN	5841	Right Auxiliary Audio Signal 2	I	—
3	0.35	VT	5843	Auxiliary Audio Common Signal	I	—
4	0.35	BK	2550	Ground	I	—
5	0.35	BU	2060	Auxiliary Detection Signal	I	—
6	0.75	RD/VT	340	Battery Positive Voltage	I	—

X83 Auxiliary Audio Input X1 (D07)



1862240

Connector Part Information

Harness Type: Floor Console
OEM Connector: 13595476
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Kaizen Series (BK)

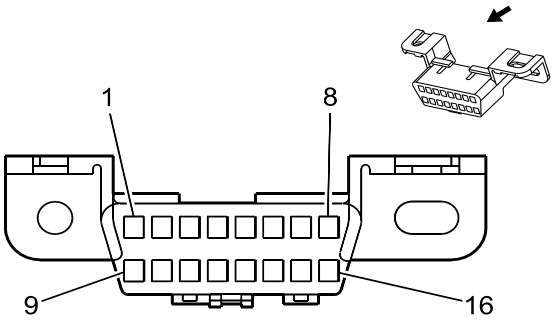
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X83 Auxiliary Audio Input X1 (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	5839	Left Auxiliary Audio Signal 2	I	—
2	0.35	GN	5841	Right Auxiliary Audio Signal 2	I	—
3	0.35	VT	5843	Auxiliary Audio Common Signal	I	—
4	0.35	BK	2550	Ground	I	—
5	0.35	BU	2060	Auxiliary Detection Signal	I	—
6	0.75	RD/VT	340	Battery Positive Voltage	I	—

X84 Data Link Connector



68793

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series (BK)

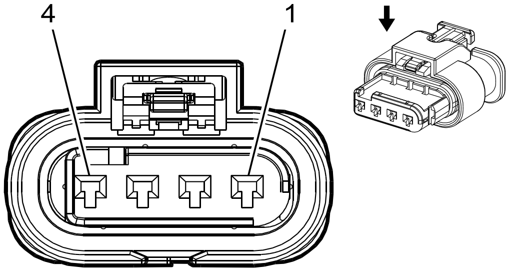
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575725	J-35616-14 (GN)	J-38125-12A	12129484	Delphi 19	E	A
II	13575725	J-35616-14 (GN)	J-38125-12A	12129484	Delphi 19	E	C

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BK	1050	Ground	II	—
5	0.75	BK/WH	1851	Signal Ground	I	—
6	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
7 - 11	—	—	—	Not Occupied	—	—
12	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
13	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
14	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
15	—	—	—	Not Occupied	—	—
16	0.35	RD/WH	640	Battery Positive Voltage	II	—

X85 Steering Wheel Air Bag Coil X3



2684560

Connector Part Information

Harness Type: Body
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed (YE)

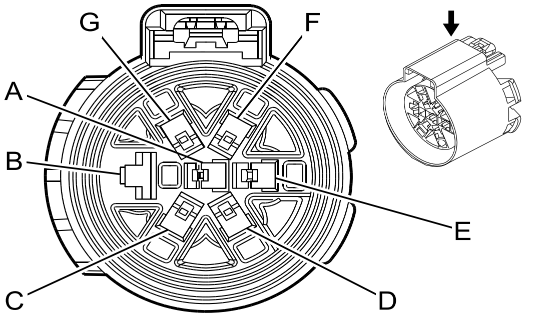
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X85 Steering Wheel Air Bag Coil X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/VT	3021	Steering Wheel Module Stage 1 High Control	I	—
2	0.35	BN/OG	3020	Steering Wheel Module Stage 1 Low Control	I	—
3	0.35	OG/GN	3023	Steering Wheel Module Stage 2 High Control	I	—
4	0.35	WH/OG	3022	Steering Wheel Module Stage 2 Low Control	I	—

X88 Trailer Connector (8S3)



2056936

Connector Part Information

Harness Type: Backup Alarm
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

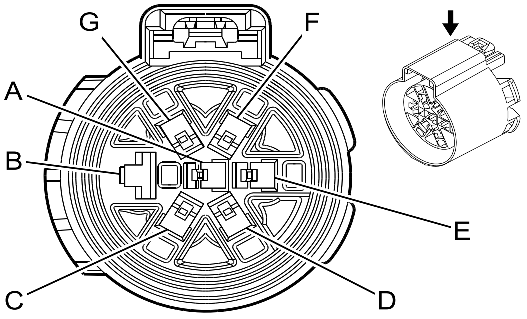
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector (8S3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	GN	1624	Trailer Backup Lamp Control	II	—
B	5	WH	22	Trailer Ground	I	—
C	3	BU	47	Trailer Auxiliary Control	II	—
D	0.8	GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD/BK	742	Battery Positive Voltage	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	0.8	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X88 Trailer Connector (UY2)



2056936

Connector Part Information

Harness Type: Camper
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

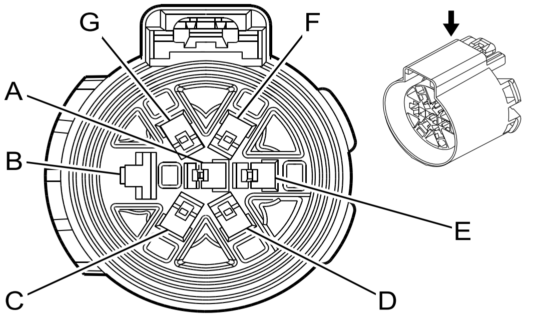
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector (UY2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH/GN	1624	Trailer Backup Lamp Control	II	—
B	6	WH	22	Trailer Ground	I	—
C	5	BU	47	Trailer Auxiliary Control	II	—
D	0.75	GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	4	RD/GN	742	Battery Positive Voltage	II	—
F	1.5	GY/BN	2109	Trailer Park Lamp Control	II	—
G	0.75	YE/GY	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X88 Trailer Connector (UY2-Z6A)



2056936

Connector Part Information

Harness Type: Camper
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

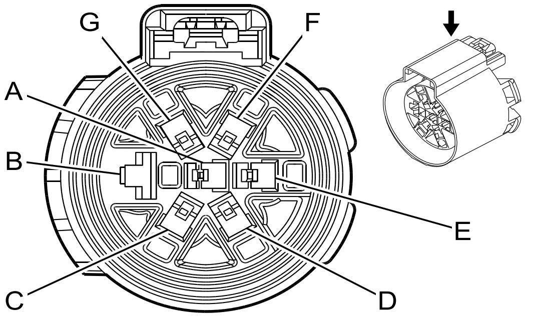
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector (UY2-Z6A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH/GN	1624	Trailer Backup Lamp Control	II	—
B	6	WH	22	Trailer Ground	I	—
C	5	BU	47	Trailer Auxiliary Control	II	—
D	0.75	GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	4	RD/GN	742	Battery Positive Voltage	II	—
F	1.5	GY/BN	2109	Trailer Park Lamp Control	II	—
G	0.75	YE/GY	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X88 Trailer Connector (Z82)



2056936

Connector Part Information

Harness Type: Chassis
OEM Connector: 13857223
Service Connector: 19367745
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

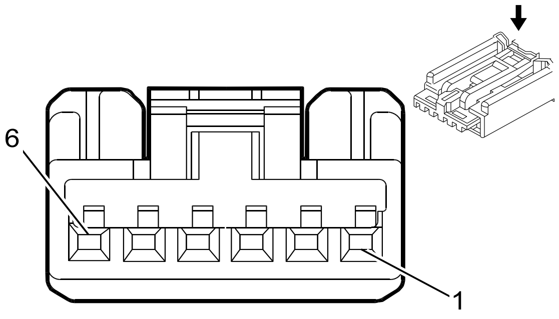
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector (Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH/GN	1624	Trailer Backup Lamp Control	II	—
B	5	WH	22	Trailer Ground	I	—
C	2.5 5	BU BU	47 47	Trailer Auxiliary Control Trailer Auxiliary Control	II II	— —
D	0.75	GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	4	RD/GN	742	Battery Positive Voltage	II	—
F	1.5	GY/BN	2109	Trailer Park Lamp Control	II	—
G	0.75	YE/GY	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X92 USB Receptacle X1



1862240

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595476
Service Connector: 19367517
Description: 6-Way F 0.64 Kaizen Series (BK)

Terminal Part Information

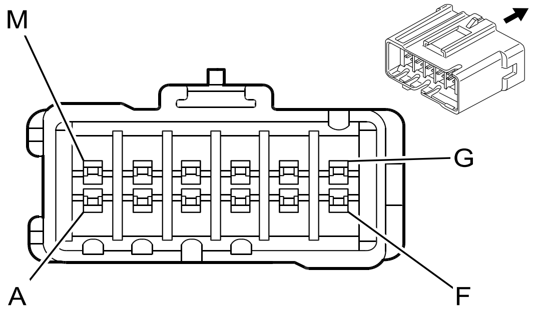
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X92 USB Receptacle X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.35	BK	2550	Ground	I	—
5	—	—	—	Not Occupied	—	—
6	0.75	RD/VT	340	Battery Positive Voltage	I	—

Splice Pack Connector End Views

JX200 Splice Pack



831366

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305291
Service Connector: 15305291
Description: 12-Way F 280 Metri-Pack Series (BK)

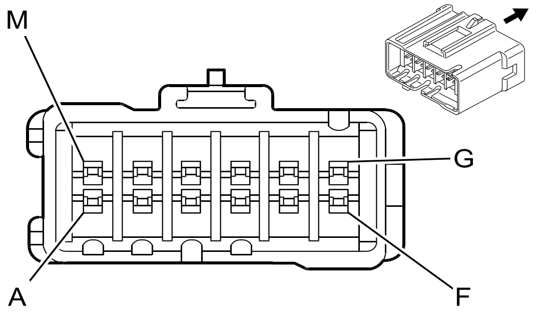
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	4
II	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	A

JX200 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
B - D	—	—	—	Not Occupied	—	—
E	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
F - H	—	—	—	Not Occupied	—	—
J	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
K	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
L	—	—	—	Not Occupied	—	—
M	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—

JX300 Splice Pack



831366

Connector Part Information

Harness Type: Body
OEM Connector: 15305291
Service Connector: 15305291
Description: 12-Way F 280 Metri-Pack Series (BK)

Terminal Part Information

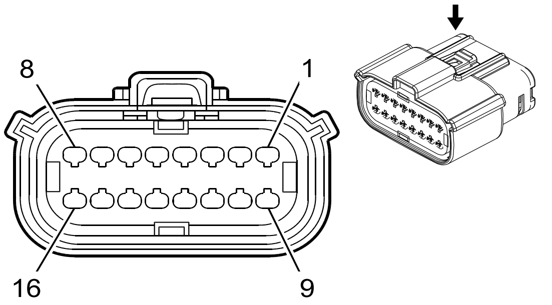
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	4
II	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	A

JX300 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
E	—	—	—	Not Occupied	—	—
F	0.35 0.5	GN GN	5060 5060	Low Speed GMLAN Serial Data Low Speed GMLAN Serial Data	I II	AL0 HP5
G - H	—	—	—	Not Occupied	—	—
J	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
K	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
L	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
M	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—

Inline Harness Connector End Views

X100 Forward Lamp Harness to Front Bumper Harness (X88+UD5)



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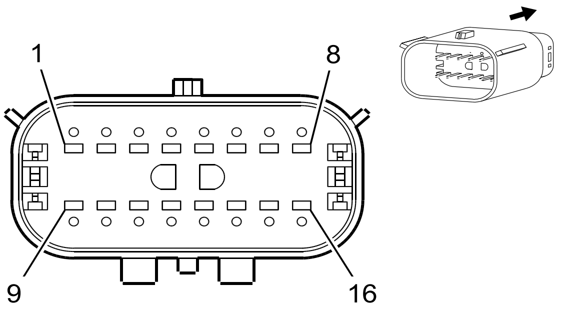


2548390

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33120329
Service Connector: 19354087
Description: 16-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 15533030
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

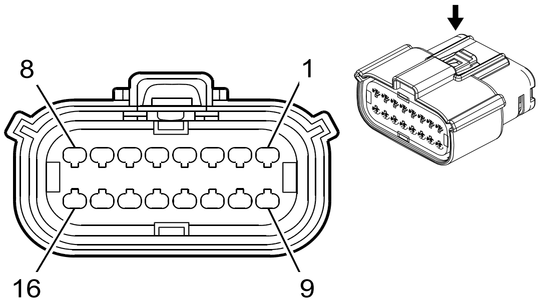
X100 Forward Lamp Harness to Front Bumper Harness (X88+UD5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BK	150	I	—	Ground	1	0.5	BK	150	II	—
2	1	BK	250	I	—	Ground	2	0.5	BK	250	II	—
3	0.5	BN/VT	2234	I	—	Front Fog Lamp Control	3	0.5	BN/VT	2234	II	—
4	0.5	YE/VT	5213	I	—	Front Parking Left/Right/Mid Sensor	4	0.5	YE/GN	5213	II	—
5	0.5	VT/WH	5215	I	—	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	II	—
6	0.5	YE/GY	5216	I	—	Front Parking Left Mid Sensor	6	0.5	YE/GY	5216	II	—
7	0.5	WH/GY	5217	I	—	Front Parking Right Corner Sensor	7	0.5	WH/GY	5217	II	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	VT/GY	5218	I	—	Front Parking Right Mid Sensor	10	0.5	VT/GY	5218	II	—

X100 Forward Lamp Harness to Front Bumper Harness (X88+UD5) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	BK/ BU	5214	I	—	Front Parking Sensor Low Reference	11	0.5	BK/ BU	5214	II	—
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X100 Forward Lamp Harness to Front Bumper Harness (X88-UD5)



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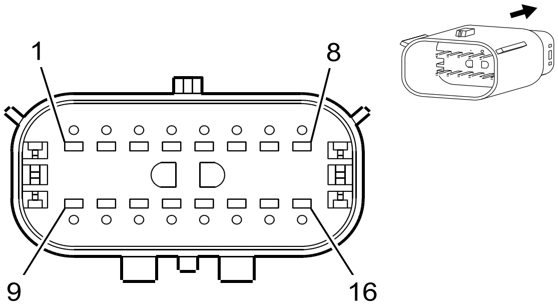


2548390

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33122174
Service Connector: 19354087
Description: 16-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 33101516
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 150 MX Series, Sealed (BK)

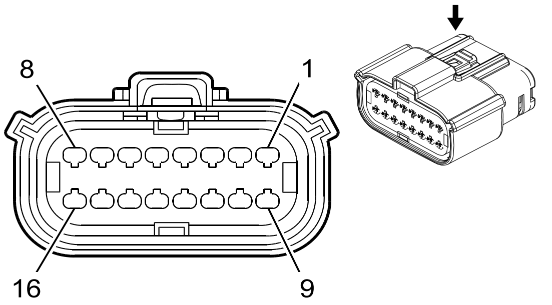
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X100 Forward Lamp Harness to Front Bumper Harness (X88-UD5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BK	150	I	—	Ground	1	0.5	BK	150	II	—
2	1	BK	250	I	—	Ground	2	0.5	BK	250	II	—
3	0.5	BN/VT	2234	I	—	Front Fog Lamp Control	3	0.5	BN/VT	2234	II	—
4 - 16	—	—	—	—	—	Not Occupied	4 - 16	—	—	—	—	—

X100 Forward Lamp Harness to Front Bumper Harness (Z88+UD5)



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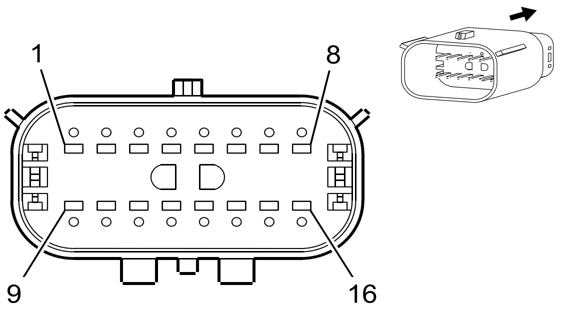


2548390

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33120329
Service Connector: 19354087
Description: 16-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 15533030
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

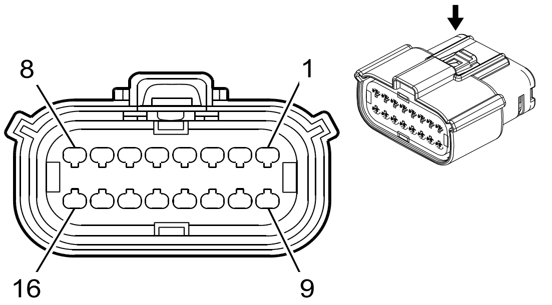
X100 Forward Lamp Harness to Front Bumper Harness (Z88+UD5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BK	150	I	—	Ground	1	0.5	BK	150	II	—
2	1	BK	250	I	—	Ground	2	0.5	BK	250	II	—
3	0.5	BN/VT	2234	I	—	Front Fog Lamp Control	3	0.5	BN/VT	2234	II	—
4	0.5	YE/VT	5213	I	—	Front Parking Left/Right/Mid Sensor	4	0.5	YE/GN	5213	II	—
5	0.5	VT/WH	5215	I	—	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	II	—
6	0.5	YE/GY	5216	I	—	Front Parking Left Mid Sensor	6	0.5	YE/GY	5216	II	—
7	0.5	WH/GY	5217	I	—	Front Parking Right Corner Sensor	7	0.5	WH/GY	5217	II	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	VT/GY	5218	I	—	Front Parking Right Mid Sensor	10	0.5	VT/GY	5218	II	—
11	0.5	BK/BU	5214	I	—	Front Parking Sensor Low Reference	11	0.5	BK/BU	5214	II	—

X100 Forward Lamp Harness to Front Bumper Harness (Z88+UD5) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X100 Forward Lamp Harness to Front Bumper Harness (Z88-UD5)



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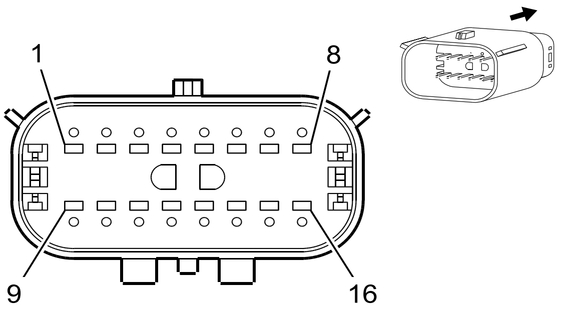


2548390

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33122174
Service Connector: 19354087
Description: 16-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Front Fascia
OEM Connector: 33101516
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 150 MX Series, Sealed (BK)

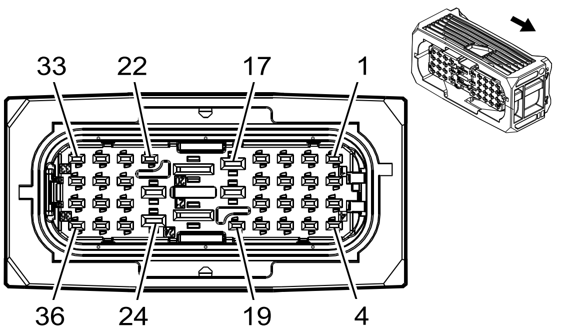
Terminal Part Information

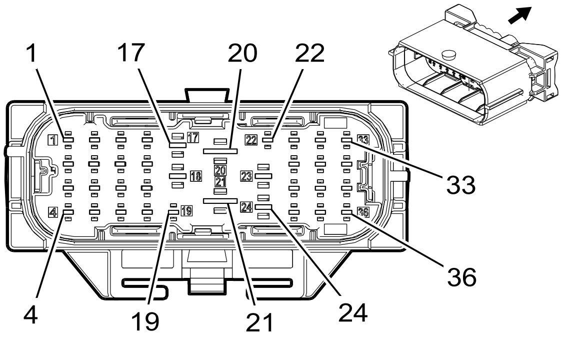
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X100 Forward Lamp Harness to Front Bumper Harness (Z88-UD5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BK	150	I	—	Ground	1	0.5	BK	150	II	—
2	1	BK	250	I	—	Ground	2	0.5	BK	250	II	—
3	0.5	BN/VT	2234	I	—	Front Fog Lamp Control	3	0.5	BN/VT	2234	II	—
4 - 16	—	—	—	—	—	Not Occupied	4 - 16	—	—	—	—	—

X101 Engine Harness to Engine Harness (L5P)





Connector Part Information

Harness Type: Engine
OEM Connector: 13929980
Service Connector: 19333092
Description: 36-Way F 1.5, 2.8 CTS, 6.3 MCP Series (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 13930004
Service Connector: 19330685
Description: 36-Way M 1.5, 2.8, 5.8 Series, Sealed

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13582180	J-35616-14 (GN)	J-38125-560	1241374-1	Lear 17	E	2
II	19301763	J-35616-35 (VT)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	19329757	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19333088	J-35616-35 (VT)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
V	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13580819	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VII	19331731	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X101 Engine Harness to Engine Harness (L5P)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU/BN	4498	III	—	High Speed GMLAN Serial Data (+) 7	1	0.5	BU/BN	4498	VII	L5P
2	0.5	WH	4499	III	—	High Speed GMLAN Serial Data (-) 7	2	0.5	WH	4499	VII	L5P
3	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	3	0.5	BU	2500	VII	L5P

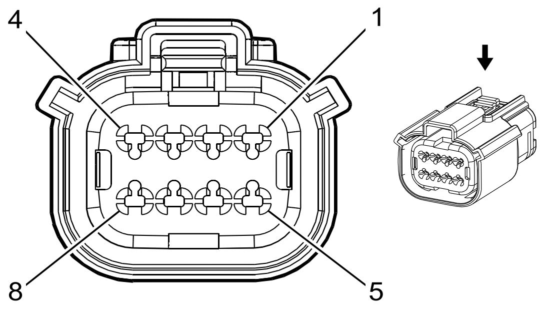
X101 Engine Harness to Engine Harness (L5P) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
4	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	4	0.5	WH	2501	VII	L5P
5	0.5	BK/ BN	6782	III	—	Exhaust Gas Temperature Sensor 1 Low Reference	5	0.5	BK/ BN	6782	VII	L5P
6	0.5	BU/ WH	5277	III	—	Exhaust Gas Temperature Sensor 1	6	0.5	BU/ WH	5277	VII	L5P
7	0.5	BK/ BU	6783	III	—	Exhaust Gas Temperature Sensor 2 Low Reference	7	0.5	BK/ BU	6783	VII	L5P
8	0.5	BU/ GN	5377	III	—	Exhaust Gas Temperature Sensor 2	8	0.5	BU/ GN	5377	VII	L5P
9	0.5	BK/ BU	6274	III	—	Exhaust Gas Recirculation Temperature Sensor Low Reference	9	0.5	BK/ BU	6274	VII	L5P
10	0.5	WH/ BN	3237	III	—	Exhaust Gas Recirculation Temperature Sensor Signal	10	0.5	WH/ BN	3237	VII	L5P
11	0.5	BK/ YE	6275	III	—	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	11	0.5	BK/ YE	6275	VII	L5P
12	0.5	YE/ GN	3236	III	—	Exhaust Gas Recirculation Temperature Sensor 2 Signal	12	0.5	YE/ GN	3236	VII	L5P
13	0.5	YE/ BK	3682	III	—	Charge Air Cooler Inlet Temperature Sensor Low Reference	13	0.5	YE/ BK	3682	VII	L5P
14	0.5	GN	3683	III	—	Charge Air Cooler Inlet Temperature Sensor Signal	14	0.5	GN	3683	VII	L5P
15	0.5	BN/ BK	2929	III	—	Fuel Metering Valve Low Control	15	0.5	BN/ BK	2929	VII	L5P
16	0.5	YE	2928	III	—	Fuel Metering Valve High Control	16	0.5	YE	2928	VII	L5P
17	0.5	VT/ YE	5985	II	—	Accessory Wakeup Serial Data	17	0.5	VT/ YE	443	VI	L5P

X101 Engine Harness to Engine Harness (L5P) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
18	0.5	VT/ BK	2139	II	—	Run/Crank Ignition 1 Voltage	18	0.5	VT/ BK	2139	VI	L5P
19 - 21	—	—	—	—	—	Not Occupied	19 - 21	—	—	—	—	—
22	0.5	VT/ BU	3674	I	—	NOx Sensor 1 Control	22	0.5	VT/ BU	3674	V	L5P
23	0.5	GY	23	IV	—	Generator Field Duty Cycle Signal	23	0.5	GY	23	VI	L5P
24	0.75	BN	25	IV	—	Charge Indicator Control	24	0.5	BN	25	VI	L5P
25	0.5	BN/ RD	7445	III	—	Fuel Line Pressure Sensor 5V Reference	25	0.5	BN/ RD	7445	VII	L5P
26	0.5	BK/ YE	7447	III	—	Fuel Line Pressure Sensor Low Reference	26	0.5	BK/ YE	7447	VII	L5P
27	0.5	BU/ WH	7446	III	—	Fuel Line Pressure Sensor Signal	27	0.5	BU/ WH	7446	VII	L5P
28	—	—	—	—	—	Crankshaft Position Sensor Replicated Signal	28	0.5	VT/ BU	6091	VII	L5P
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.5	BU/ GN	7071	III	—	Heater Fuel Control	30	0.5	BU/ GN	7071	VII	L5P
31	0.5	VT/ BN	2927	III	—	Hydrocarbon Injector Low Control	31	0.5	VT/ BN	2927	VII	L5P
32	0.5	BN/ BU	2926	III	—	Hydrocarbon Injector High Control	32	0.5	BN/ BU	2926	VII	L5P
33	0.5	BU/ BN	4498	III	—	High Speed GMLAN Serial Data (+) 7	33	0.5	BU/ BN	4498	VII	L5P
34	0.5	WH	4499	III	—	High Speed GMLAN Serial Data (-) 7	34	0.5	WH	4499	VII	L5P
35	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	35	0.5	BU	2500	VII	L5P
36	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	36	0.5	WH	2501	VII	L5P

X105 Engine Harness to Forward Lamp Harness (L8B)



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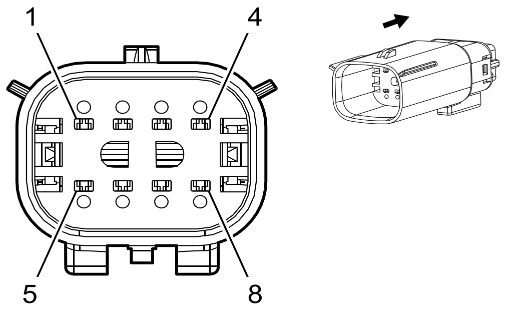


2667653

Connector Part Information

Harness Type: Engine
OEM Connector: 13654393
Service Connector: 13577527
Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15456955
Service Connector: 19300474
Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

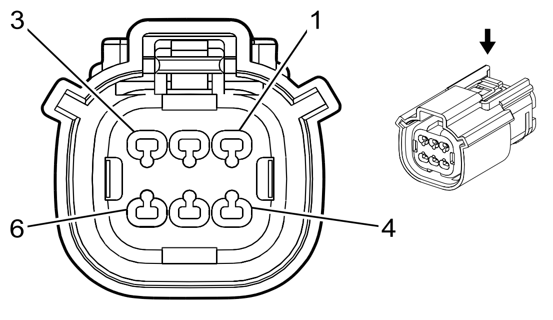
X105 Engine Harness to Forward Lamp Harness (L8B)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BN/ YE	473	I	—	High Speed Cooling Fan Relay Control	1	0.5	BN/ YE	473	II	—
2	0.5	BK/ BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	2	0.5	BK/ BU	61	II	—
3	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal Outside Ambient Air Temperature Sensor Signal	3	0.5	BU/ GY	636	II	—
4	0.5	GY/ VT	3873	I	—	Powertrain Electronics Cooling Loop (PECL) Temperature Sensor Signal	4	0.5	GY/ VT	3873	II	—

X105 Engine Harness to Forward Lamp Harness (L8B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.75	VT/ BU	5290	I	—	Powertrain Main Relay Fused Supply 1	5	0.5	VT/ BU	5290	II	—
6	0.5	GN/ VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	6	0.5	GN/ VT	4621	II	—
7	0.5	VT/ BU	3790	I	—	Electric Coolant Motor Feedback Signal	7	0.5	VT/ BU	3790	II	—
8	0.5	BK/ GY	3872	I	—	Powertrain Electronics Cooling Loop (PECL) Temperature Sensor Low Reference	8	0.5	BK/ GY	3872	II	—

X105 Engine Harness to Forward Lamp Harness (-L8B)



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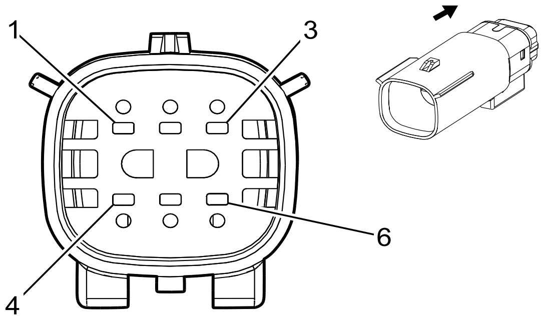


1986159

Connector Part Information

Harness Type: Engine
OEM Connector: 13609714
Service Connector: 13585853
Description: 6-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15457002
Service Connector: 19367742
Description: 6-Way M 150 MX Series, Sealed (BK)

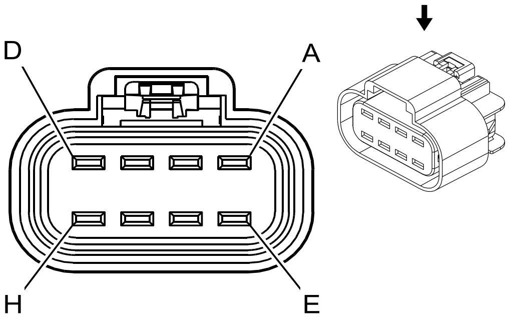
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X105 Engine Harness to Forward Lamp Harness (-L8B)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BN/YE	473	I	—	High Speed Cooling Fan Relay Control	1	0.5	BN/YE	473	II	—
2	0.5	BK/BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	2	0.5	BK/BU	61	II	—
3	0.5	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	3	0.5	BU/GY	636	II	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.75	VT/BU	5290	I	—	Powertrain Main Relay Fused Supply 1	5	0.5	VT/BU	5290	II	—
6	0.5	GN/VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	6	0.5	GN/VT	4621	II	—

X110 Forward Lamp Harness to POA Lamp Harness (Heavy Duty)



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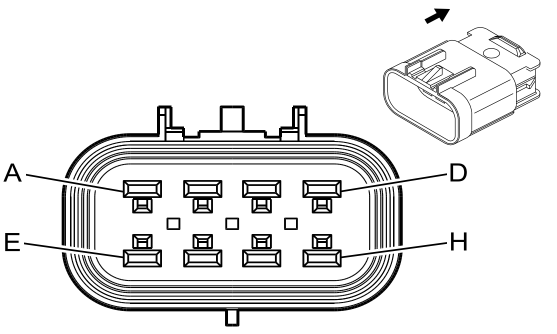


847234

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15326654
Service Connector: 88986254
Description: 8-Way F 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: POA Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

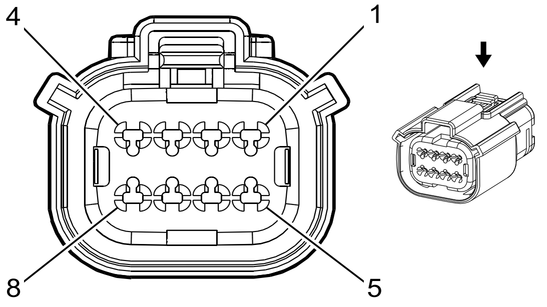
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X110 Forward Lamp Harness to POA Lamp Harness (Heavy Duty)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1.5	BK	150	I	—	Ground	A	1.5	BK	150	II	—
B	0.75	YE	712	I	—	Left Headlamp Low Beam Control	B	0.75	YE	712	II	—
C	0.5	WH	711	I	—	Left Headlamp High Beam Control	C	0.5	WH	711	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—
E	0.5	VT/GY	709	I	—	Left Park Lamp Control	E	0.5	VT/GY	709	II	—
F	0.75	BU/WH	1314	I	—	Left Front Turn Signal Lamp Control	F	0.75	BU/WH	1314	II	—
G	0.75	GY/BU	7538	I	—	Left Front DRL Control	G	0.75	GY/BU	7538	II	—
H	0.5	VT/GY	709	I	—	Left Park Lamp Control	H	0.5	VT/GY	709	II	—

X110 Forward Lamp Harness to Front Bumper Harness (Light Duty)



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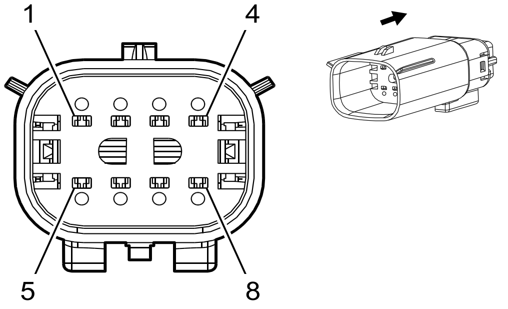


2667653

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13654393
Service Connector: 13577527
Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Front Bumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

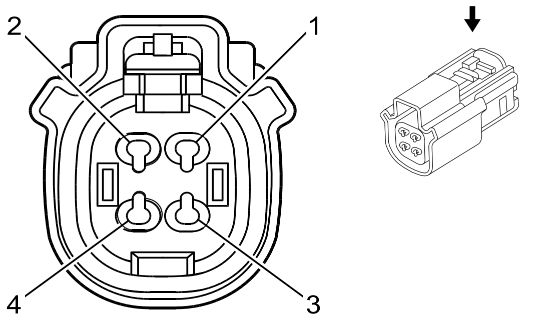
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X110 Forward Lamp Harness to Front Bumper Harness (Light Duty)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BK	150	I	—	Ground	1	1.5	BK	150	II	—
2	0.75	YE	712	I	—	Left Headlamp Low Beam Control	2	0.75	YE	712	II	—
3	0.5	WH	711	I	—	Left Headlamp High Beam Control	3	0.5	WH	711	II	—
4	0.5	VT/GY	709	I	—	Left Park Lamp Control	4	0.5	VT/GY	709	II	—
5	0.5	BU/VT	3204	I	—	Left Headlamp Bulb Outage Signal	5	0.5	BU/VT	3204	II	—
6	0.5	VT/GY	3139	I	—	Run/Crank Ignition 1 Voltage	6	0.5	VT/GY	3139	II	—
7	0.75	BU/WH	1314	I	—	Left Front Turn Signal Lamp Control	7	0.75	BU/WH	1314	II	—
8	0.75	GY/BU	7538	I	—	Left Front DRL Control	8	0.75	GY/BU	7538	II	—

X111 Transfer Case Harness to Engine Harness



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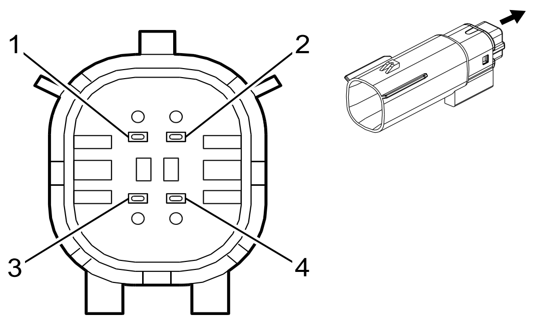


2368875

Connector Part Information

Harness Type: Transfer Case
OEM Connector: 33346391
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 33344515
Service Connector: 19366646
Description: 4-Way M 150 MX Series, Sealed (BK)

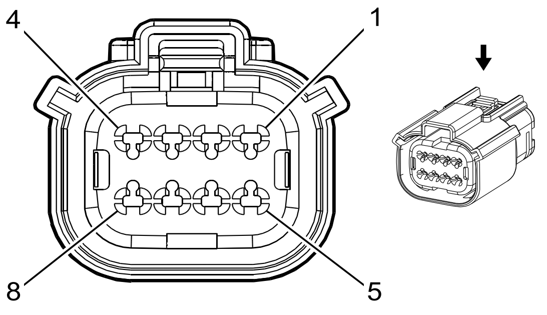
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X111 Transfer Case Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE/ WH	1695	I	—	Four Wheel Drive Wheel Lock Indicator Control Four Wheel Drive Wheel Lock Indicator Control	1	0.5	YE/ WH	1695	II	—
2	0.5	GY/ BK	1570	I	—	Front Axle Actuator Control	2	0.5	GY/ BK	1570	II	—
3	0.5	VT/ BK	2139	I	—	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	3	0.5	VT/ BK	2139	II	—
4	0.5	BK	550	I	—	Ground	4	1	BK	550	II	—

X112 Engine Harness to Engine Harness (L5P)



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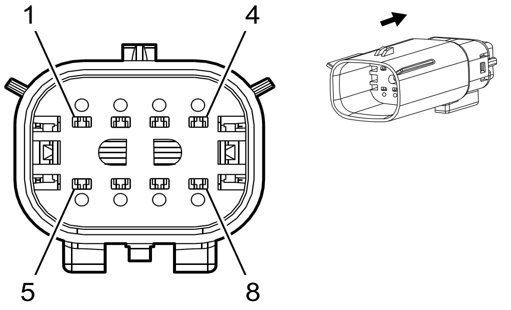


2667653

Connector Part Information

Harness Type: Engine
OEM Connector: 13503524
Service Connector: 13577527
Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 13503538
Service Connector: 19300474
Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

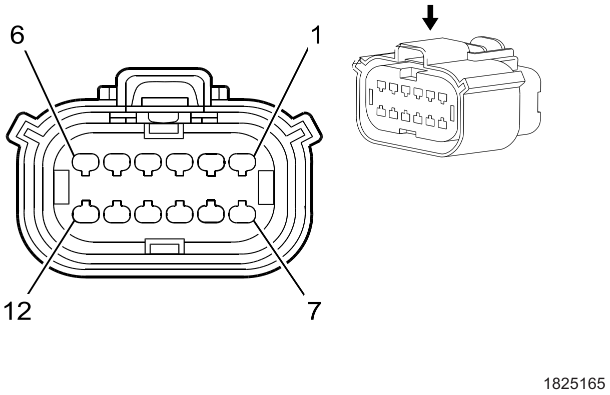
X112 Engine Harness to Engine Harness (L5P)

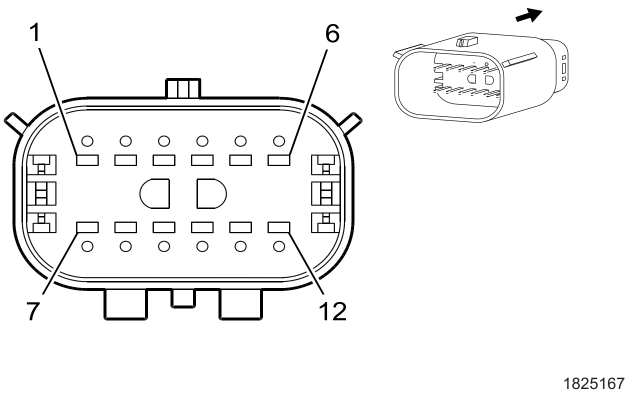
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/BU	6270	I	L5P	Crankshaft 60X Sensor 5V Reference	1	0.5	VT/BU	6270	II	L5P
2	0.5	BK/VT	6272	I	L5P	Crankshaft 60X Sensor Low Reference	2	0.5	BK/VT	6272	II	L5P
3	0.5	GN	6271	I	L5P	Crankshaft 60X Sensor Signal	3	0.5	GN	6271	II	L5P
4	0.5	BN/RD	2917	I	L5P	Fuel Rail Pressure Sensor 5V Reference	4	0.5	BN/RD	2917	II	L5P
5	0.5	BK/GN	2919	I	L5P	Fuel Rail Pressure Sensor Low Reference	5	0.5	BK/GN	2919	II	L5P
6	0.5	BU/WH	2918	I	L5P	Fuel Rail Pressure Sensor Signal	6	0.5	BU/WH	2918	II	L5P

X112 Engine Harness to Engine Harness (L5P) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	BN/ YE	2161	I	L5P	Fuel Rail Pressure Sensor 2 Signal	7	0.5	BN/ YE	2161	II	L5P
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X113 Engine Harness to Engine Harness





Connector Part Information

Harness Type: Engine
OEM Connector: 13503526
Service Connector: 13503528
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 13503540
Service Connector: 13503540
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	13580014	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

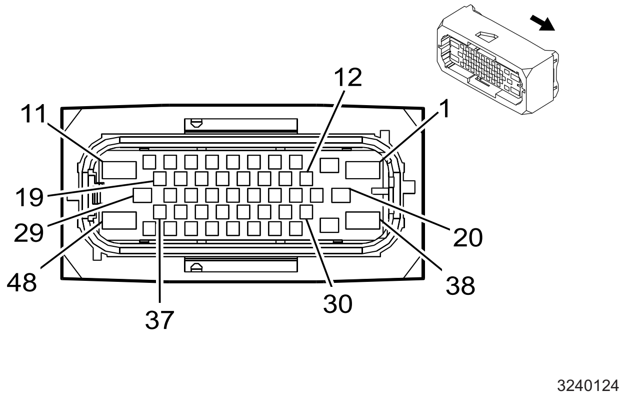
X113 Engine Harness to Engine Harness

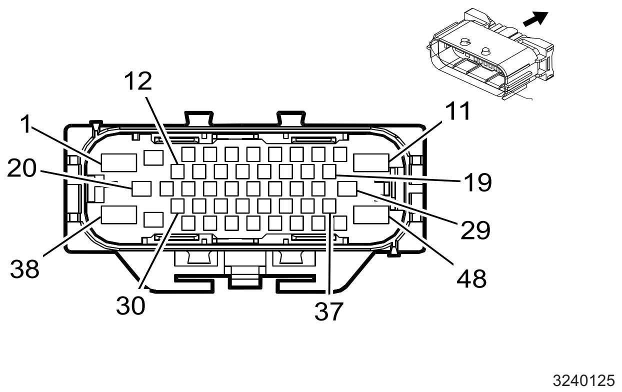
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	WH/RD	2705	I	L5P	Oil Pressure Sensor 5V Reference	1	0.5	WH/RD	2705	II	L5P
2	0.5	BK/VT	2755	I	L5P	Oil Pressure Sensor Low Reference	2	0.5	BK/VT	2755	II	L5P
3	0.5	YE/BN	331	I	L5P	Oil Pressure Sensor Signal	3	0.5	YE/BN	331	II	L5P
4	0.5	BU	410	I	L5P	Engine Coolant Temperature Sensor Signal	4	0.5	BU	410	II	L5P
5	0.5	BK/BN	2761	I	L5P	Coolant Temperature Sensor Low Reference	5	0.5	BK/BN	2761	II	L5P
6	0.5	BK/WH	251	I	L5P	Signal Ground	6	0.5	BK/WH	251	II	L5P
7	0.5	BN/GN	1174	I	L5P	Oil Level Switch Signal	7	0.5	BN/GN	1174	II	L5P
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—

X113 Engine Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	YE	2928	I	L5P	Fuel Metering Valve High Control	10	0.5	YE	2928	II	L5P
11	0.5	BN/ BK	2929	I	L5P	Fuel Metering Valve Low Control	11	0.5	BN/ BK	2929	II	L5P
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X115 Engine Harness to Body Harness (NQH)





Connector Part Information

Harness Type: Engine

OEM Connector: 15509587

Service Connector: 19119963

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (GY)

Connector Part Information

Harness Type: Body

OEM Connector: 15513437

Service Connector: 13586850

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13580829	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13580830	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	19301757	J-35616-40 (BU)	J-38125-556	1241408-1	Lear 28	B	G
IV	19301776	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	19329757	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VII	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VIII	13578881	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IX	13580827	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
X	19329756	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available
XI	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
XII	19353142	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness (NQH)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	RD/GY	1342	III	—	Battery Positive Voltage	1	4	RD/GY	1342	X	—

X115 Engine Harness to Body Harness (NQH) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
2	0.75	BU/ BN	7573	II	—	Electric Variable Displacement Supply	2	0.5	BU/ BN	7573	IX	—
3	0.5	BN/ WH	419	IV	—	Check Engine Indicator Control	3	0.35	BN/ WH	419	XI	—
4	0.5	WH/ BU	6311	IV	—	Cruise/ETC/ TCC Brake Signal	4	0.35	WH/ BU	6311	XI	—
5	0.5	WH	2501	IV	—	High Speed GMLAN Serial Data (-) 1	5	0.5	WH	2501	VI	—
6	0.5	BU	2500	IV	—	High Speed GMLAN Serial Data (+) 1	6	0.5	BU	2500	VI	—
7	0.5	WH	5359	IV	—	Brake Apply Sensor Control	7	0.35	WH	5359	XI	—
8	0.5	BK/ BN	5360	IV	—	Brake Apply Sensor Low Reference	8	0.35	BK/ BN	5360	XI	—
9	0.5	BU/ YE	5361	IV	—	Brake Apply Sensor Signal	9	0.35	BU/ YE	5361	XI	—
10	0.5	YE/ WH	1161	V	—	Accelerator Pedal Position Signal 1	10	0.35	YE/ WH	1161	XII	—
11	3	BK	550	III	—	Ground	11	4	BK	550	X	—
12	0.5	WH/ GN	7479	IV	—	Rotary Position Sensor Signal	12	0.5	WH/ GN	7479	VI	—
13	0.5	YE/ BK	7478	IV	—	Rotary Position Sensor Low Reference	13	0.5	YE/ BK	7478	VI	—
14	0.5	YE/ WH	1695	IV	—	Four Wheel Drive Wheel Lock Indicator Control	14	0.5	YE/ WH	1695	VI	—
15	0.5	GY/ BK	1570	IV	—	Front Axle Actuator Control	15	0.5	GY/ BK	1570	VI	—
16	0.5	VT/ YE	5985	IV	—	Accessory Wakeup Serial Data	16	0.35	VT/ YE	5985	XI	—
17	—	—	—	—	—	Serial Data Communication Enable	17	0.5	WH/ BU	5986	VI	—
18	0.5	WH/ RD	1164	V	—	Accelerator Pedal Position 5V Reference 1	18	0.35	WH/ RD	1164	XII	—

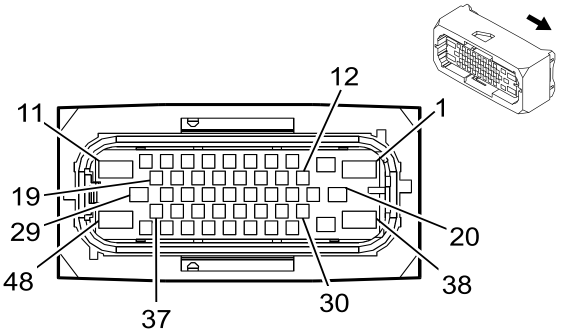
X115 Engine Harness to Body Harness (NQH) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
19	0.5	BK/BU	1271	V	—	Accelerator Pedal Position Low Reference 1	19	0.35	BK/BU	1271	XII	—
20	0.75	BU/YE	7574	II	—	Electric Variable Displacement Control	20	0.5	BU/YE	7574	IX	—
21	0.5	WH/RD	7477	IV	—	Rotary Position Sensor 5V Reference	21	0.5	WH/RD	7477	VI	—
22	0.5	BU/GY	7473	IV	—	Incremental Encoder Impulse Signal	22	0.35	BU/GY	7473	XI	—
23	0.5	VT	7476	IV	—	Incremental Encoder Sensor Low Reference	23	0.35	VT	7476	XI	—
24	0.5	YE	5530	IV	—	Hood Open Switch Signal	24	0.5	YE	5530	VI	—
25	0.5	BN/RD	1274	V	—	Accelerator Pedal Position 5V Reference 2	25	0.35	BN/RD	1274	XII	—
26	0.5	GN/WH	1162	V	—	Accelerator Pedal Position Signal 2	26	0.35	GN/WH	1162	XII	—
27	0.5	BK/VT	1272	V	—	Accelerator Pedal Position Low Reference 2	27	0.35	BK/VT	1272	XII	—
28	0.5	VT/BU	6091	IV	—	Crankshaft Position Sensor Replicated Signal	28	0.35	VT/BU	6091	XI	—
29	2.5	YE/BN	1569	I	—	Transfer Case Lock Solenoid Control	29	2.5	YE/BN	1569	VIII	—
30	0.5	WH/GN	7475	IV	—	Incremental Encoder Sensor 8V Reference	30	0.35	WH/GN	7475	XI	—
31	0.5	YE	7474	IV	—	Incremental Encoder Direction Signal	31	0.35	YE	7474	XI	—
32	0.5	BK/VT	5077	IV	—	Current Sensor Low Reference	32	0.35	BK/VT	5077	XI	—
33	0.5	WH/YE	5075	IV	—	Current Sensor Signal	33	0.35	WH/YE	5075	XI	—
34	0.5	BU/VT	5076	IV	—	Current Sensor Control	34	0.35	BU/VT	5076	XI	—

X115 Engine Harness to Body Harness (NQH) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
35	0.5	BU/ YE	6105	IV	—	High Speed GMLAN Serial Data (+) 2	35	0.5	BU/ YE	6105	VI	—
36	0.5	WH	6106	IV	—	High Speed GMLAN Serial Data (-) 2	36	0.5	WH	6106	VI	—
37	—	—	—	—	—	Battery Positive Voltage	37	0.75	RD/ BU	4540	VII	—
38	3	YE/ VT	1553	III	—	Transfer Case Motor Counter Clockwise Control	38	4	YE/ VT	1553	X	—
39	—	—	—	—	—	Battery Positive Voltage	39	0.75	RD/ VT	2640	IX	—
40	—	—	—	—	—	Power Take Off Enable In Cab Switch Normally Closed Signal	40	0.35	BN/ GN	4311	XI	—
41						Power Take Off Control Switch	41	0.35 0.5	GN/ WH YE	488 6111	XI VI	PTO MXW
42	0.5	VT/ BN	300	IV	—	Run Ignition 3 Voltage	42	0.35	VT/ BN	300	XI	—
43	—	—	—	—	—	Wait To Start Indicator Control	43	0.35	GN/ BN	507	XI	—
44	—	—	—	—	—	Low Coolant Level Indicator Control	44	0.5	BU/ YE	68	VI	—
45						Outside Ambient Air Temperature Sensor Signal	45	0.35 0.5	BU/ GY GY/ RD	636 6109	XI VI	LML/L5P MQ7
46						Outside Ambient Temperature Sensor Low Reference	46	0.35 0.5	BK/ BU BK/ GY	61 6110	XI VI	— MQ7
47	0.5	BK/ YE	4082	IV	—	Hood Latch Sensor Low Reference	47	0.5	BK/ YE	4082	VI	—
48	3	OG	1552	III	—	Transfer Case Motor Clockwise Control	48	4	YE/ GY	1552	X	—

X115 Engine Harness to Body Harness (-NQH)



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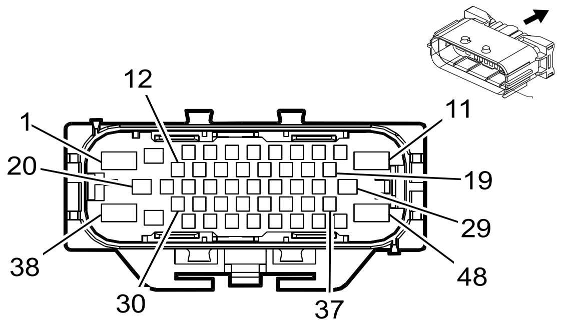


3240125

Connector Part Information

Harness Type: Engine
OEM Connector: 15509587
Service Connector: 19119963
Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 33326550
Service Connector: 19329482
Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13580830	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13582180	J-35616-14 (GN)	J-38125-560	1241374-1	Lear 17	E	2
III	19301757	J-35616-40 (BU)	J-38125-556	1241408-1	Lear 28	B	G
IV	19301776	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	19329757	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VII	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VIII	13580827	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IX	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
X	19353142	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness (-NQH)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BU/BN	7573	I	—	Electric Variable Displacement Supply	2	0.5	BU/BN	7573	VIII	—

X115 Engine Harness to Body Harness (-NQH) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	BN/ WH	419	II	—	Check Engine Indicator Control	3	0.35	BN/ WH	419	IX	—
4	0.5	WH/ BU	6311	II	—	Cruise/ETC/ TCC Brake Signal	4	0.35	WH/ BU	6311	IX	—
5	0.5 0.5	WH WH	2501 2501	IV II	— —	High Speed GMLAN Serial Data (-) 1 High Speed GMLAN Serial Data (-) 1	5	0.5	WH	2501	VI	—
6	0.5 0.5	BU BU	2500 2500	IV II	— —	High Speed GMLAN Serial Data (+) 1 High Speed GMLAN Serial Data (+) 1	6	0.5	BU	2500	VI	—
7	0.5	WH	5359	II	—	Brake Apply Sensor Control	7	0.35	WH	5359	IX	—
8	0.5	BK/ BN	5360	II	—	Brake Apply Sensor Low Reference	8	0.35	BK/ BN	5360	IX	—
9	0.5	BU/ YE	5361	II	—	Brake Apply Sensor Signal	9	0.35	BU/ YE	5361	IX	—
10	0.5	YE/ WH	1161	V	—	Accelerator Pedal Position Signal 1	10	0.35	YE/ WH	1161	X	—
11 - 13	—	—	—	—	—	Not Occupied	11 - 13	—	—	—	—	—
14	0.5	YE/ WH	1695	II	—	Four Wheel Drive Wheel Lock Indicator Control	14	—	—	—	—	—
15	0.5	GY/ BK	1570	II	—	Front Axle Actuator Control	15	—	—	—	—	—
16	0.5	VT/ YE	5985	II	—	Accessory Wakeup Serial Data	16	0.35	VT/ YE	5985	IX	—
17	0.5	WH/ BU	5986	II	—	Serial Data Communication Enable	17	0.5	WH/ BU	5986	VI	—
18	0.5	WH/ RD	1164	V	—	Accelerator Pedal Position 5V Reference 1	18	0.35	WH/ RD	1164	X	—
19	0.5	BK/ BU	1271	V	—	Accelerator Pedal Position Low Reference 1	19	0.35	BK/ BU	1271	X	—

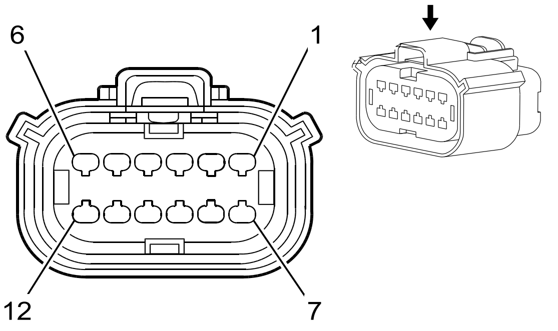
X115 Engine Harness to Body Harness (-NQH) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
20	0.75	BU/ YE	7574	I	—	Electric Variable Displacement Control	20	0.5	BU/ YE	7574	VIII	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	BU/ GY	7473	II	—	Incremental Encoder Impulse Signal	22	—	—	—	—	—
23	0.5	VT	7476	II	—	Incremental Encoder Sensor Low Reference	23	—	—	—	—	—
24	0.5	YE	5530	IV	—	Hood Open Switch Signal	24	0.5	YE	5530	VI	—
25	0.5	BN/ RD	1274	V	—	Accelerator Pedal Position 5V Reference 2	25	0.35	BN/ RD	1274	X	—
26	0.5	GN/ WH	1162	V	—	Accelerator Pedal Position Signal 2	26	0.35	GN/ WH	1162	X	—
27	0.5	BK/ VT	1272	V	—	Accelerator Pedal Position Low Reference 2	27	0.35	BK/ VT	1272	X	—
28 - 29	—	—	—	—	—	Not Occupied	28 - 29	—	—	—	—	—
30	0.5	WH/ GN	7475	II	—	Incremental Encoder Sensor 8V Reference	30	—	—	—	—	—
31	0.5	YE	7474	II	—	Incremental Encoder Direction Signal	31	—	—	—	—	—
32	0.5	BK/ VT	5077	IV	—	Current Sensor Low Reference	32	0.35	BK/ VT	5077	IX	—
33	0.5	WH/ YE	5075	IV	—	Current Sensor Signal	33	0.35	WH/ YE	5075	IX	—
34	0.5	BU/ VT	5076	IV	—	Current Sensor Control	34	0.35	BU/ VT	5076	IX	—
35	0.5 0.5	BU/ YE BU/ YE	6105 6105	IV II	— —	High Speed GMLAN Serial Data (+) 2 High Speed GMLAN Serial Data (+) 2	35	0.5	BU/ YE	6105	VI	—

X115 Engine Harness to Body Harness (-NQH) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
36	0.5 0.5	WH WH	6106 6106	II IV	— —	High Speed GMLAN Serial Data (-) 2 High Speed GMLAN Serial Data (-) 2	36	0.5	WH	6106	VI	—
37	0.75	RD/BU	4540	II	—	Battery Positive Voltage	37	0.75	RD/BU	4540	VII	—
38	—	—	—	—	—	Not Occupied	38	—	—	—	—	—
39	0.75	RD/VT	2640	I	—	Battery Positive Voltage	39	0.75	RD/VT	2640	VIII	—
40	0.5	BN/GN	4311	II	—	Power Take Off Enable In Cab Switch Normally Closed Signal	40	0.35	BN/GN	4311	IX	—
41	0.5 0.5	GN/WH YE	488 6111	II IV	— —	Power Take Off Control Switch Clutch Apply Sensor Signal	41	0.35	GN/WH	488	IX	—
42	0.5	VT/BN	300	IV	—	Run Ignition 3 Voltage	42	0.35	VT/BN	300	IX	—
43	0.5	GN/BN	507	II	—	Wait To Start Indicator Control	43	0.35	GN/BN	507	IX	—
44	0.5	BU/YE	68	II	—	Low Coolant Level Indicator Control	44	0.5	BU/YE	68	VI	—
45	0.5 0.5	GY/RD BU/GY	6109 636	IV IV	— —	Clutch Apply Sensor 5V Reference Outside Ambient Air Temperature Sensor Signal	45	0.35	BU/GY	636	IX	—
46	0.5 0.5	BK/BU BK/GY	61 6110	IV IV	— —	Outside Ambient Temperature Sensor Low Reference Clutch Apply Sensor Low Reference	46	0.35	BK/BU	61	IX	—
47	0.5	BK/YE	4082	IV	—	Hood Latch Sensor Low Reference	47	0.5	BK/YE	4082	VI	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—

X116 Engine Harness to Body Harness



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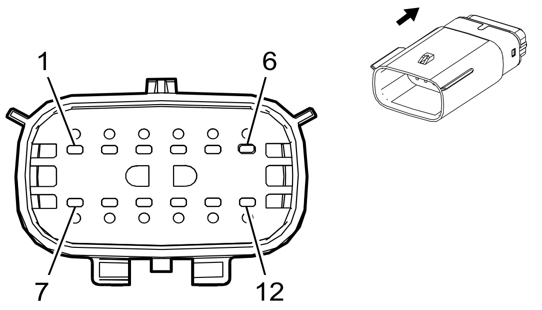


2424959

Connector Part Information

Harness Type: Engine
OEM Connector: 13653762
Service Connector: 13503528
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13534850
Service Connector: 13503540
Description: 12-Way M 150 MX Series, Sealed (BK)

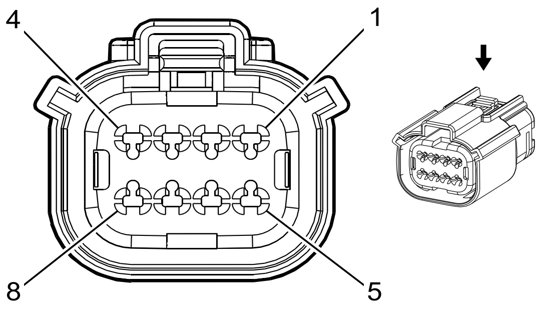
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

X116 Engine Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	3	0.5	BU	2500	II	—
4	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	4	0.5	WH	2501	II	—
5 - 8	—	—	—	—	—	Not Occupied	5 - 8	—	—	—	—	—
9	0.5	BU/BK	7493	I	—	High Speed GMLAN Serial Data (+)3	9	0.5	BU/BK	7493	II	—
10	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	10	0.5	WH	7494	II	—
11 - 12	—	—	—	—	—	Not Occupied	11 - 12	—	—	—	—	—

X120 Forward Lamp Harness to POA Lamp Harness (Heavy Duty+HP5)



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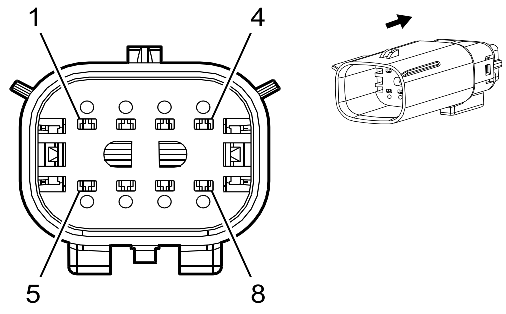


2667653

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13654393
Service Connector: 13577527
Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: POA Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

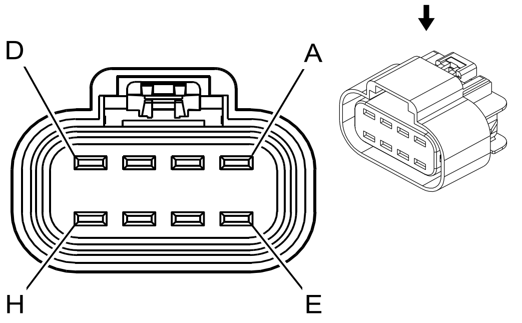
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X120 Forward Lamp Harness to POA Lamp Harness (Heavy Duty+HP5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BK	250	I	—	Ground	1	1.5	BK	250	II	—
2	0.75	YE	312	I	—	Right Headlamp Low Beam Control	2	0.75	YE	312	II	—
3	0.5	WH	311	I	—	Right Headlamp High Beam Control	3	0.5	WH	311	II	—
4	0.5	GY/ BN	309	I	—	Right Park Lamp Control	4	0.5	GY/ BN	309	II	—
5	0.5	WH/ BU	3203	I	—	Right Headlamp Bulb Outage Signal	5	0.5	WH/ BU	3203	II	—
6	0.5	VT/ GY	3139	I	—	Run/Crank Ignition 1 Voltage	6	0.5	VT/ GY	3139	II	—
7	0.75	GN/ VT	1315	I	—	Right Front Turn Signal Lamp Control	7	0.75	GN/ VT	1315	II	—
8	0.75	BU/ BN	7539	I	—	Right Front DRL Control	8	0.75	BU/ BN	7539	II	—

X120 Forward Lamp Harness to POA Lamp Harness (Heavy Duty-HP5)



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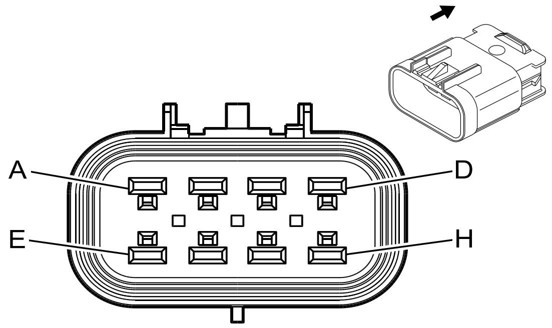


847234

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15326654
Service Connector: 88986254
Description: 8-Way F 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: POA Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

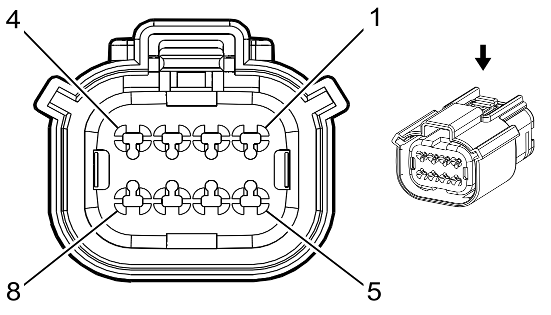
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X120 Forward Lamp Harness to POA Lamp Harness (Heavy Duty-HP5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1.5	BK	250	I	—	Ground	A	1.5	BK	250	II	—
B	0.75	YE	312	I	—	Right Headlamp Low Beam Control	B	0.75	YE	312	II	—
C	0.5	WH	311	I	—	Right Headlamp High Beam Control	C	0.5	WH	311	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—
E	0.5	GY/BN	309	I	—	Right Park Lamp Control	E	0.5	GY/BN	309	II	—
F	0.75	GN/VT	1315	I	—	Right Front Turn Signal Lamp Control	F	0.75	GN/VT	1315	II	—
G	0.75	BU/BN	7539	I	—	Right Front DRL Control	G	0.75	BU/BN	7539	II	—
H	0.5	GY/BN	309	I	—	Right Park Lamp Control	H	0.5	GY/BN	309	II	—

X120 Forward Lamp Harness to POA Lamp Harness (Light Duty)



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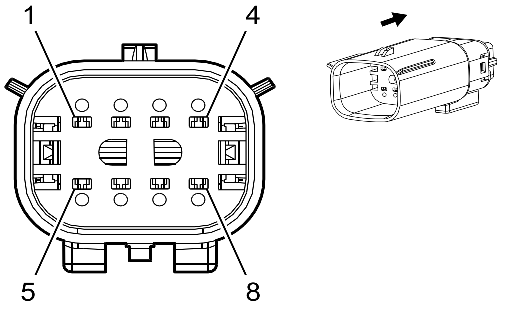


2667653

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13654393
Service Connector: 13577527
Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: POA Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

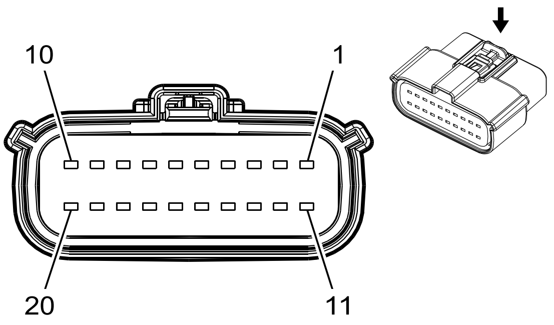
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X120 Forward Lamp Harness to POA Lamp Harness (Light Duty)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BK	250	I	—	Ground	1	1.5	BK	250	II	—
2	0.75	YE	312	I	—	Right Headlamp Low Beam Control	2	0.75	YE	312	II	—
3	0.5	WH	311	I	—	Right Headlamp High Beam Control	3	0.5	WH	311	II	—
4	0.5	GY/ BN	309	I	—	Right Park Lamp Control	4	0.5	GY/ BN	309	II	—
5	0.5	WH/ BU	3203	I	—	Right Headlamp Bulb Outage Signal	5	0.5	WH/ BU	3203	II	—
6	0.5	VT/ GY	3139	I	—	Run/Crank Ignition 1 Voltage	6	0.5	VT/ GY	3139	II	—
7	0.75	GN/ VT	1315	I	—	Right Front Turn Signal Lamp Control	7	0.75	GN/ VT	1315	II	—
8	0.75	BU/ BN	7539	I	—	Right Front DRL Control	8	0.75	BU/ BN	7539	II	—

X125 Engine Harness to Chassis Harness



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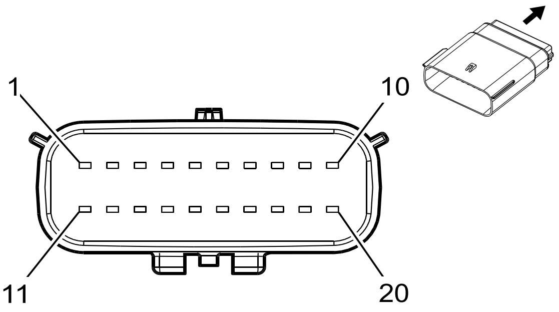


2871861

Connector Part Information

Harness Type: Engine
OEM Connector: 13650143
Service Connector: 19300557
Description: 20-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33181044
Service Connector: 19351705
Description: 20-Way M 1.5 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300432	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

X125 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5 0.5	BK/VT VT/BU	3661 3120	II II	L5P L83/L86/L8B/LV3	Exhaust Gas Temperature Sensor 5 Low Reference Heated Oxygen Sensor High Signal Bank 1 Sensor 2	1	0.5 0.5	BK/VT VT	3661 3120	III III	L5P L83/L86/L8B/LV3
2	0.5 0.5	BU/GY WH/YE	3660 3121	II II	L5P L83/L86/L8B/LV3	Exhaust Gas Temperature Sensor 5 Signal Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	2	0.5 0.5	BU/GY WH/YE	3660 3121	III III	L5P L96/L83/L86/L8B/LV3

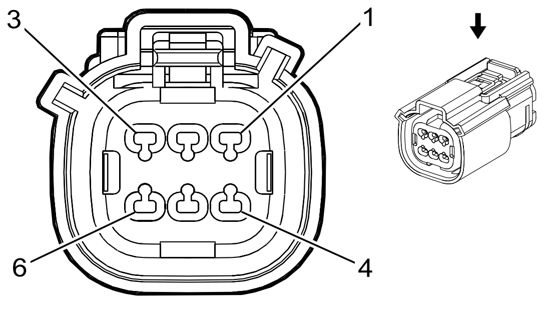
X125 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5 0.5	BK/GY GY/WH	3659 3122	II II	L5P L83/L86/L8B/L96/LV3	Exhaust Gas Temperature Sensor 4 Low Reference Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	3	0.5 0.5	BK/GY GY/WH	3659 3122	III III	L5P L96/L83/L86/L8B/LV3
4	0.5 0.5	VT/BN VT/BU	3658 5294	II II	L5P L83/L86/L8B/L96/LV3	Exhaust Gas Temperature Sensor 4 Signal Powertrain Main Relay Fused Supply 5	4	0.5 0.5	VT/BN VT/BU	3658 5294	III III	L5P L96
5	0.5	BU/YE	6105	II	—	High Speed GMLAN Serial Data (+) 2	5	0.5	BU/YE	6105	III	—
6	0.5	WH	6106	II	—	High Speed GMLAN Serial Data (-) 2	6	0.5	WH	6106	III	—
7	0.5 0.5	BK/GN WH	3657 1310	II II	L5P L96/LV3/LV1/L83/L86/L8B	Exhaust Gas Temperature Sensor 3 Low Reference EVAP Canister Vent Solenoid Control	7	0.5 0.5	BK/GN WH	3657 1310	III III	L5P L96
8	0.5 0.5	BU/WH BU/WH	7446 1937	II II	L5P L96	Fuel Line Pressure Sensor Signal Secondary Fuel Level Sensor Signal	8	0.5 0.5	BU/WH BU/WH	7446 1937	III III	L5P L96
9	0.5	BK/YE	7447	II	—	Fuel Line Pressure Sensor Low Reference	9	0.5	BK/YE	7447	III	—
10	0.5	RD/WH	2740	II	—	Battery Positive Voltage	10	0.5	RD/WH	2740	III	—
11	0.5 0.5	GY/GN BU/VT	5378 1589	II II	L5P LV3/LV1/L83/L86/L8B	Exhaust Gas Temperature Sensor 3 Primary Fuel Level Sensor Signal	11	0.5 0.5	GY/GN BU/VT	5378 1589	III III	L5P LV3/LV1/L83/86/L8B
12	0.5 0.5	BN/BU BK/GN	2926 6281	II II	L5P LV1/LV3/L83/L86/L8B/L96	Hydrocarbon Injector High Control Fuel Level Sensor Low Reference	12	0.5 0.5	BN/BU BK/GN	2926 6281	III III	L5P LV1/LV3/L83/L86/L8B/L96

X125 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.5 0.5	WH BU/BK	4499 7493	II II	L5P L83/L86/LV1/LV3-HP5	High Speed GMLAN Serial Data (-) 7 High Speed GMLAN Serial Data (+)3	13	0.5 0.5	WH BU/BK	4499 7493	III III	L5P L83/L86/LV1/LV3-HP5
14	0.5 0.5	BU/BN WH	4498 7494	II II	L5P L83/L86/LV1/LV3-HP5	High Speed GMLAN Serial Data (+) 7 High Speed GMLAN Serial Data (-)3	14	0.5 0.5	BU/BN WH	4498 7494	III III	L5P L83/L86/LV1/LV3-HP5
15	0.5 0.5	WH/RD BU/WH	6054 890	II II	L5P L96/LV1/LV3/L83/L86/L8B	Exhaust Pressure Sensor 5V Reference 1 Fuel Tank Pressure Sensor Signal	15	0.5 0.5	WH/RD BU/WH	6054 890	III III	L5P L96/LV1/LV3/L83/L86/L8B
16	0.5 0.5	BK/YE YE/RD	6055 2709	II II	L5P L96/LV1/LV3/L83/L86/L8B	Exhaust Pressure Sensor Low Reference 1 Fuel Tank Pressure Sensor 5V Reference	16	0.5 0.5	BK/YE YE/RD	6055 2709	III III	L5P L96/LV1/LV3/L83/L86/L8B
17	0.5 0.5	BU WH	6053 1579	II II	L5P LV3/LV1/L83/L86-L8B-HP5-Z75	Exhaust Pressure Sensor Signal 1 Fuel Temperature/Composition Signal	17	0.5 0.5	BU WH	6053 1579	III III	L5P LV3/LV1/L83/L86-L8B-HP5-Z75
18	0.5	BN/RD	7445	II	—	Fuel Line Pressure Sensor 5V Reference	18	0.5	BN/RD	7445	III	—
19	1.5	VT/BU	3674	I	—	NOx Sensor 1 Control	19	1.5	VT/BU	3674	III	—
20	0.5	VT/BN	2927	II	—	Hydrocarbon Injector Low Control	20	0.5	VT/YE	2927	III	—

X132 Aero Shutter Jumper Harness to Forward Lamp Harness (X88)



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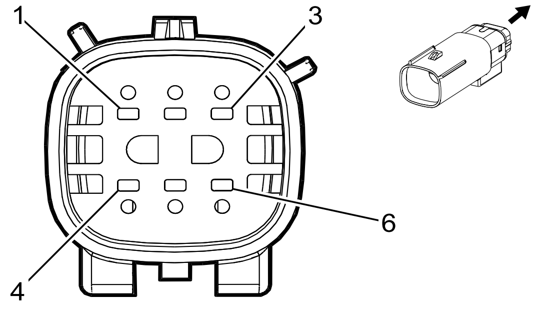


3225221

Connector Part Information

Harness Type: Aero Shutter Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33104948
Service Connector: 19333101
Description: 6-Way M 150 MX Series, Sealed (GY)

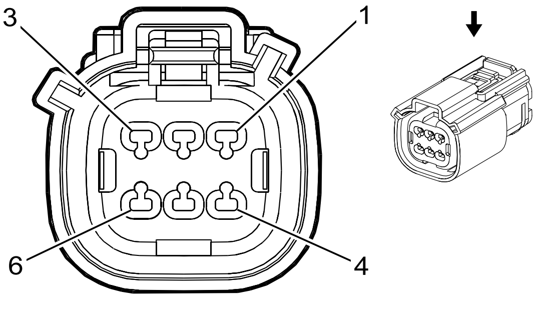
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X132 Aero Shutter Jumper Harness to Forward Lamp Harness (X88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BK	250	I	—	Ground	1	1	BK	250	II	—
2	0.5	VT/BU	5290	I	—	Powertrain Main Relay Fused Supply 1	2	0.5	VT/BU	5290	II	—
3	0.5	GN/VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	3	0.5	GN/VT	4621	II	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	BK/BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	5	0.5	BK/BU	61	II	—
6	0.5	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	6	0.5	BU/GY	636	II	—

X132 Aero Shutter Jumper Harness to Forward Lamp Harness (Z88)



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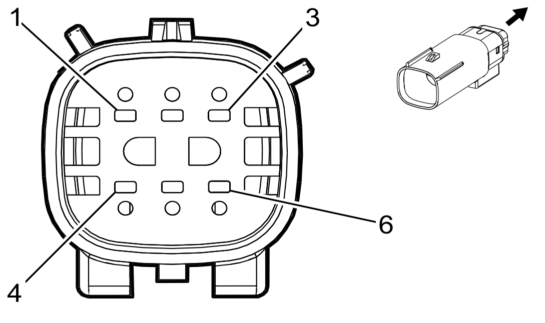


3225221

Connector Part Information

Harness Type: Aero Shutter Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33104948
Service Connector: 19333101
Description: 6-Way M 150 MX Series, Sealed (GY)

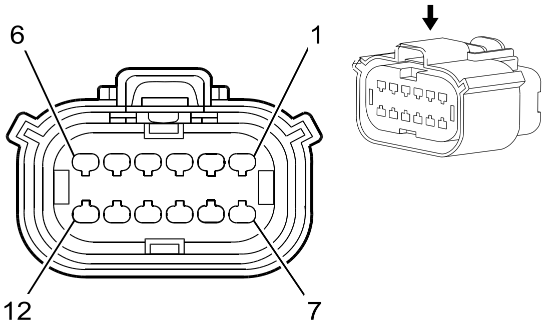
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X132 Aero Shutter Jumper Harness to Forward Lamp Harness (Z88)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BK	250	I	—	Ground	1	1	BK	250	II	—
2	0.5	VT/BU	5290	I	—	Powertrain Main Relay Fused Supply 1	2	0.5	VT/BU	5290	II	—
3	0.5	GN/VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	3	0.5	GN/VT	4621	II	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	BK/BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	5	0.5	BK/BU	61	II	—
6	0.5	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	6	0.5	BU/GY	636	II	—

X134 Chassis Harness to Power Steering Jumper Harness



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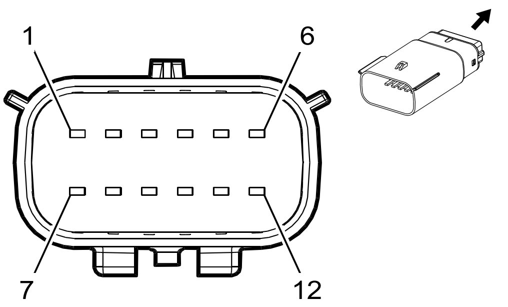


2687960

Connector Part Information

Harness Type: Chassis
OEM Connector: 13609715
Service Connector: 19178148
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Power Steering Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

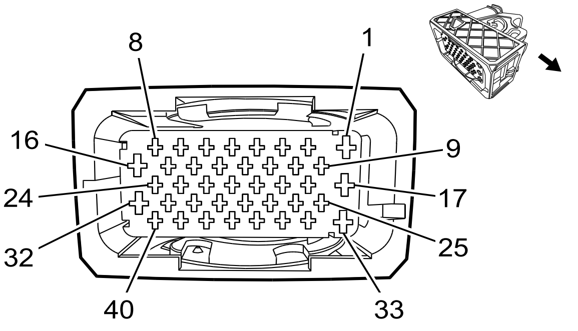
X134 Chassis Harness to Power Steering Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	2	0.5	WH	2501	II	—
3	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	3	0.5	BU	2500	II	—
4	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	4	0.5	WH	6106	II	—
5	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	5	0.5	BU/YE	6105	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.5	WH/BU	5986	I	—	Serial Data Communication Enable	8	0.5	WH/BU	5986	II	—

X134 Chassis Harness to Power Steering Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	9	0.5	WH	2501	II	—
10	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	10	0.5	BU	2500	II	—
11	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	11	0.5	WH	6106	II	—
12	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	12	0.5	BU/ YE	6105	II	—

X138 Chassis Harness to Body Harness



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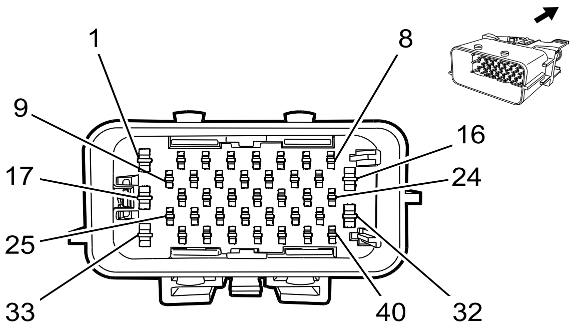

2339640

Connector Part Information

Harness Type: Chassis
OEM Connector: 13603185
Service Connector: 13576549
Description: 40-Way F 1.5, 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13603208
Service Connector: 13576551
Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575429	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
II	13578884	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	13580829	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	19353105	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
V	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VII	13578881	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VIII	13580827	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IX	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X138 Chassis Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/BK	7633	IV	—	Integrated Trailer Brake Controller User Gain Signal	1	0.5	GN/BK	7633	VIII	—
2	0.5	GN/BN	2087	II	—	Combined Vehicle Inertial Sensor Supply Voltage	2	0.35	GN/BN	2087	IX	—

X138 Chassis Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	YE	7635	II	—	Integrated Trailer Brake Controller Manual Apply Signal	3	0.5	YE	7635	V	—
4	0.5	BU/ RD	7632	II	—	Integrated Trailer Brake Controller Switch 5V Reference	4	0.5	BU/ RD	7632	V	—
5	0.5	BN	7634	II	—	Integrated Trailer Brake Controller Redundant Manual Apply Signal	5	0.5	BN	7634	V	—
6	0.5	BK/ BN	7631	II	—	Integrated Trailer Brake Controller Switch Low Reference	6	0.5	BK/ BN	7631	V	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—
8	0.5	GN	5060	II	—	Low Speed GMLAN Serial Data	8	—	—	—	—	—
9	0.5	BN/ WH	2374	II	—	Object Sensor Control	9	0.35	BN/ WH	2374	IX	—
10	0.75	YE/ BN	967	I	—	—	10	—	—	—	—	—
11	0.5	YE	2375	II	—	Left Rear Corner Object Sensor Signal	11	0.35	YE	2375	IX	—
12	0.5	YE/ BU	2376	II	—	Left Rear Middle Object Sensor Signal	12	0.35	YE/ BU	2376	IX	—
13	0.5	YE/ VT	2378	II	—	Right Rear Corner Object Sensor Signal	13	0.35	YE/ VT	2378	IX	—
14	0.5	YE/ RD	2377	II	—	Right Rear Middle Object Sensor Signal	14	0.35	YE/ WH	2377	IX	—
15	0.75	RD/ GN	968	I	—	—	15	—	—	—	—	—
16	0.5	GN/ YE	6846	IV	—	Rear License Lamp Control	16	0.5	GN/ YE	6846	VIII	—
17	0.5	WH/ BU	5986	IV	—	Serial Data Communication Enable	17	0.5	WH/ BU	5986	VIII	—
18	0.5	BU	2500	II	—	High Speed GMLAN Serial Data (+) 1	18	0.5	BU	2500	V	—

X138 Chassis Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
19	0.5	WH	2501	II	—	High Speed GMLAN Serial Data (-) 1	19	0.5	WH	2501	V	—
20	0.5	VT/ YE	5985	II	—	Accessory Wakeup Serial Data	20	0.5	VT/ YE	5985	V	—
21	0.5	BK/ GY	2379	II	—	Object Sensor Low Reference	21	0.35	BK/ GY	2379	IX	—
22	—	—	—	—	—	Not Occupied	22	—	—	—	—	—
23	0.5	GY/ BN	309	II	—	Right Park Lamp Control	23	0.5	GY/ BN	309	V	—
24	0.75	BN/ YE	294	I	—	Door Lock Actuator Unlock Control	24	0.75	BN/ YE	294	VI	—
25	0.75 0.75	GY GY	295 5911	I I	A91 N08	Door Lock Actuator Lock Control Door Lock Actuator Lock Control 2	25	0.75	GY	295	VI	—
26	0.5	BU/ BK	7493	II	—	High Speed GMLAN Serial Data (+)3	26	—	—	—	—	—
27	0.5	WH	7494	II	—	High Speed GMLAN Serial Data (-)3	27	—	—	—	—	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5	BK	2550	II	—	Ground	29	0.75	BK	2550	VI	—
30	0.5	BK	6974	II	—	Camera Low Reference	30	0.5	BK	6974	V	—
31	0.75	WH/ BN	158	I	—	Cargo Lamp Switch Signal	31	—	—	—	—	—
32	2.5	BU	47	III	—	Trailer Auxiliary Control	32	2.5	BU	47	VII	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	GY/ GN	6190	II	—	Lift Glass/ Rear Compartment Lid Exterior Release Signal	34	—	—	—	—	—
35	0.5	YE	9003	II	—	—	35	—	—	—	—	—
36	0.75	WH/ VT	1430	I	—	Exterior Courtesy Lamp Control	36	0.75	WH/ VT	1430	VI	—
37	0.5	GY/ YE	6972	II	—	Camera Signal 2 +	37	0.35	GY/ YE	6972	IX	—

X138 Chassis Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
38	0.5	WH/ BU	6973	II	—	Camera Signal 2	38	0.35	WH/ BU	6973	IX	—
39	0.5	BN/ WH	7462	II	—	Running Boards Disable Signal	39	—	—	—	—	—
40	0.5	GN/ WH	817	II	—	Vehicle Speed Signal	40	0.5	GN/ GY	817	V	—

X143 DEF Jumper Harness to Engine Harness (L5P)

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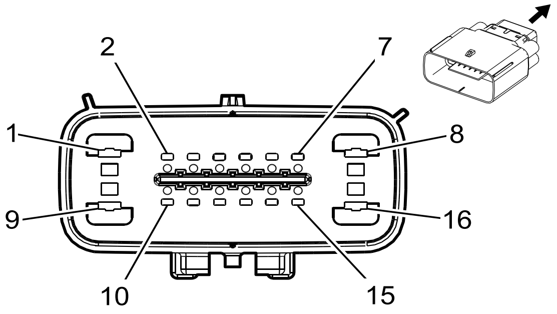


4209017

Connector Part Information

Harness Type: DEF Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F

Connector Part Information

Harness Type: Engine
OEM Connector: 33182033
Service Connector: 19354088
Description: 16-Way M 150 MX Series, Sealed (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19329833	J-35616-3 (GY)	J-38125-12A	1326030-6	Lear 17	E	2
IV	19329833	J-35616-5 (PU)	J-38125-12A	1326030-6	Lear 17	E	C
V	19329833	J-35616-5 (PU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

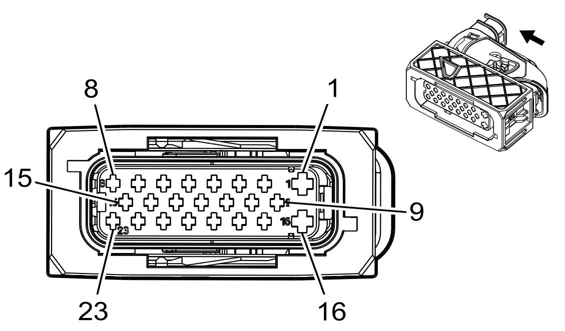
X143 DEF Jumper Harness to Engine Harness (L5P)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	RD/WH	3440	I	—	Battery Positive Voltage	1	0.75	RD/WH	3440	IV	—
4	0.5	WH	4499	I	—	High Speed GMLAN Serial Data (-) 7	4	0.5	WH	4499	II	—
5	0.5	BU/BN	4498	I	—	High Speed GMLAN Serial Data (+) 7	5	0.5	BU/BN	4498	II	—
8	2.5	BK	550	I	—	Ground	8	2.5	BK	550	V	—
9	0.5	VT/GN	4320	I	—	Selective Catalytic Reduction Power Module Wake-Up Signal	9	0.5	VT/GN	4320	III	—

X143 DEF Jumper Harness to Engine Harness (L5P) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
14	0.5	WH	4499	I	—	High Speed GMLAN Serial Data (-) 7	14	0.5	WH	4499	II	—
15	0.5	BU/ BN	4498	I	—	High Speed GMLAN Serial Data (+) 7	15	0.5	BU/ BN	4498	II	—
16	2.5	BU	3921	I	—	DEF Heater Supply 1	16	2.5	BU	3921	V	—

X150 Body Harness to Forward Lamp Harness (UD7/UD5)



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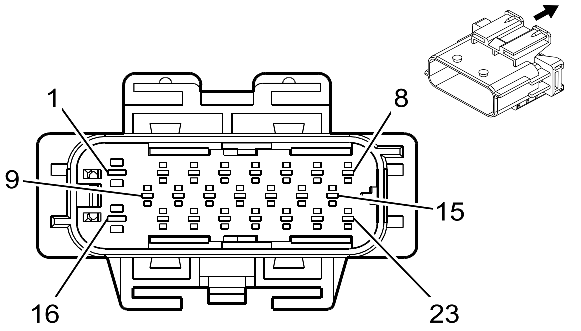


4773531

Connector Part Information

Harness Type: Body
OEM Connector: 33332679
Service Connector: 19300480
Description: 23-Way F 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33332855
Service Connector: 19301797
Description: 23-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575389	J-35616-35 (VT)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13576369	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13580827	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

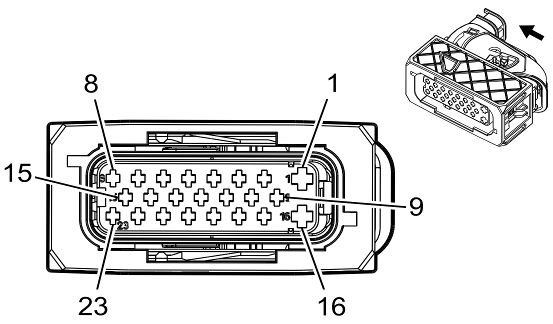
X150 Body Harness to Forward Lamp Harness (UD7/UD5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BK/BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	1	0.5	BK/BU	61	IV	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.35	YE/GY	5216	II	—	Front Parking Left Mid Sensor	4	0.5	YE/GY	5216	III	—
5	0.35	WH/GY	5217	II	—	Front Parking Right Corner Sensor	5	0.5	WH/GY	5217	III	—
6	0.35	VT/GY	5218	II	—	Front Parking Right Mid Sensor	6	0.5	VT/GY	5218	III	—
7	0.35	BK/BU	5214	II	—	Front Parking Sensor Low Reference	7	0.5	BK/BU	5214	III	—

X150 Body Harness to Forward Lamp Harness (UD7/UD5) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.35	VT/ WH	5215	II	—	Front Parking Left Corner Sensor	8	0.5	VT/ WH	5215	III	—
9 - 10	—	—	—	—	—	Not Occupied	9 - 10	—	—	—	—	—
11	0.35	OG/ GN	1409	II	—	Right Front Discriminating Sensor Signal	11	0.5	OG/ GN	1409	III	—
12	0.35	BK/ OG	5600	II	—	Right Front Discriminating Sensor Low Reference	12	0.5	BK/ OG	5600	III	—
13	0.5	BK/ YE	4082	II	—	Hood Latch Sensor Low Reference	13	0.5	BK/ YE	4082	III	—
14	0.35	VT	185	II	—	Low Washer Fluid Indicator Control	14	0.5	VT	185	III	—
15	0.35	YE/ VT	5213	II	—	Front Parking Left/Right/ Mid Sensor	15	0.5	YE/ VT	5213	III	—
16	0.35	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	16	0.5	BU/ GY	636	IV	—
17 - 19	—	—	—	—	—	Not Occupied	17 - 19	—	—	—	—	—
20	0.35	OG/ YE	354	II	—	Left Front Discriminating Sensor Signal	20	0.5	OG/ YE	354	III	—
21	0.35	BK/ OG	5045	II	—	Left Front Discriminating Sensor Low Reference	21	0.5	BK/ OG	5045	III	—
22	0.5	YE	5530	II	—	Hood Open Switch Signal	22	0.5	YE	5530	III	—
23	0.5	BN/ GN	109	II	—	Hood Ajar Switch Signal	23	0.5	BN/ GN	109	III	—

X150 Body Harness to Forward Lamp Harness (-UD7/UD5)



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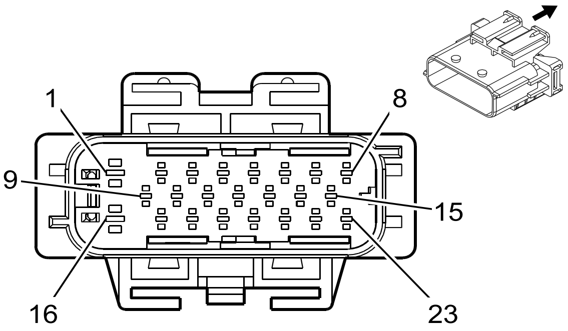


4773531

Connector Part Information

Harness Type: Body
OEM Connector: 33326552
Service Connector: 19300480
Description: 23-Way F 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 33326560
Service Connector: 19301797
Description: 23-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575389	J-35616-35 (VT)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13576369	J-35616-14 (GN)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13580827	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

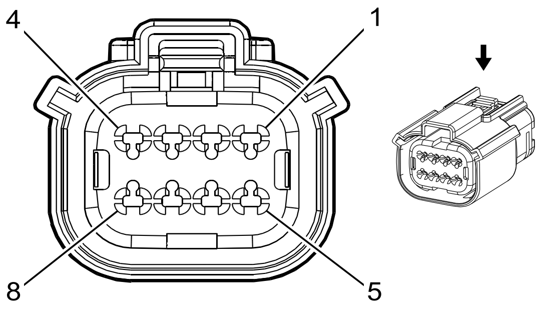
X150 Body Harness to Forward Lamp Harness (-UD7/UD5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BK/BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	1	0.5	BK/BU	61	IV	—
2 - 10	—	—	—	—	—	Not Occupied	2 - 10	—	—	—	—	—
11	0.35	OG/GN	1409	II	—	Right Front Discriminating Sensor Signal	11	0.5	OG/GN	1409	III	—
12	0.35	BK/OG	5600	II	—	Right Front Discriminating Sensor Low Reference	12	0.5	BK/OG	5600	III	—
13	0.5	BK/YE	4082	II	—	Hood Latch Sensor Low Reference	13	0.5	BK/YE	4082	III	—

X150 Body Harness to Forward Lamp Harness (-UD7/UD5) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
14	0.35	VT	185	II	—	Low Washer Fluid Indicator Control	14	0.5	VT	185	III	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.35	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	16	0.5	BU/GY	636	IV	—
17 - 19	—	—	—	—	—	Not Occupied	17 - 19	—	—	—	—	—
20	0.35	OG/YE	354	II	—	Middle Front Discriminating Sensor Signal Left Front Discriminating Sensor Signal	20	0.5 0.5	OG/GY OG/YE	6618 354	III III	— —
21	0.35	BK/OG	5045	II	—	Middle Front Discriminating Sensor Low Reference Left Front Discriminating Sensor Low Reference	21	0.5 0.5	BK/OG BK/OG	6619 5045	III III	— —
22	0.5	YE	5530	II	—	Hood Open Switch Signal	22	0.5	YE	5530	III	—
23	0.5	BN/GN	109	II	—	Hood Ajar Switch Signal	23	0.5	BN/GN	109	III	—

X154 Engine Harness to Camshaft Position Sensor Jumper Harness



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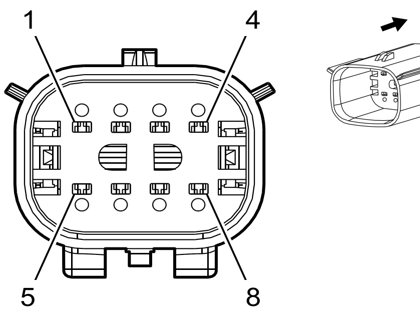


2667653

Connector Part Information

Harness Type: Engine
OEM Connector: 13884361
Service Connector: 19366859
Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13790317
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

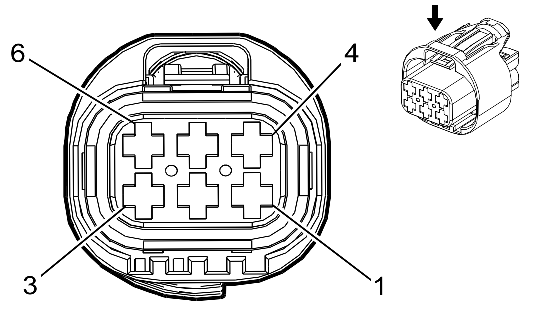
X154 Engine Harness to Camshaft Position Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/BU	5300	I	—	Camshaft Position Intake Sensor Control 1	1	0.5	GY/BU	5300	II	—
2	0.5	BK/GN	5301	I	—	Camshaft Position Intake Sensor Low Reference 1	2	0.5	BK/GN	5301	II	—
3	0.5	YE/VT	5275	I	—	Camshaft Position Intake Sensor 1	3	0.5	YE/VT	5275	II	—
4	0.5	BU	179	I	—	Oil Pump Command Signal	4	0.5	BU	179	II	—
5	0.5	VT/BN	5284	I	—	Camshaft Phaser Intake Solenoid 1	5	0.5	VT/BN	5284	II	—
6	0.5	BK/BN	6753	I	—	Cam Phaser W Low Reference	6	0.5	BK/BN	6753	II	—

X154 Engine Harness to Camshaft Position Sensor Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.75	VT/ BU	5293	I	—	Powertrain Main Relay Fused Supply 4	7	0.5	VT/ BU	5293	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X158 Auxiliary Battery Harness to Engine Harness



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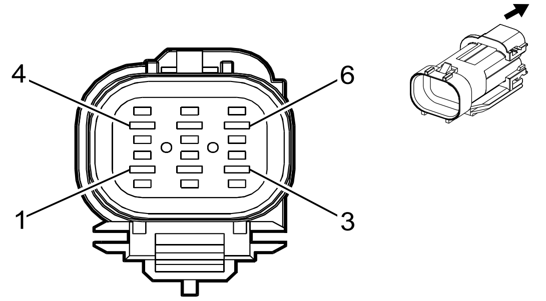


2042939

Connector Part Information

Harness Type: Auxiliary Battery
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Engine
OEM Connector: 13893482
Service Connector: 19367564
Description: 6-Way M 2.8 Series, Sealed (BK)

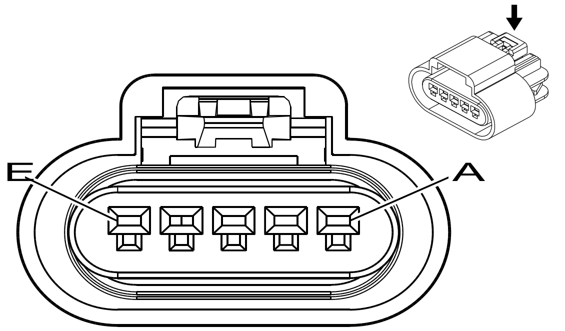
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X158 Auxiliary Battery Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/ BN	300	I	—	Run Ignition 3 Voltage	1	0.5	VT/ BN	300	II	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	RD/ WH	3440	I	—	Battery Positive Voltage	3	0.5	RD/ WH	3440	II	—
4	1	BK	550	I	—	Ground	4	1	BK	550	II	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	2.5	RD/ GN	742	I	—	Battery Positive Voltage	6	2.5	RD/ GN	742	II	—

X159 Engine Harness to Camshaft Position Sensor Jumper Harness (L96/LC8)



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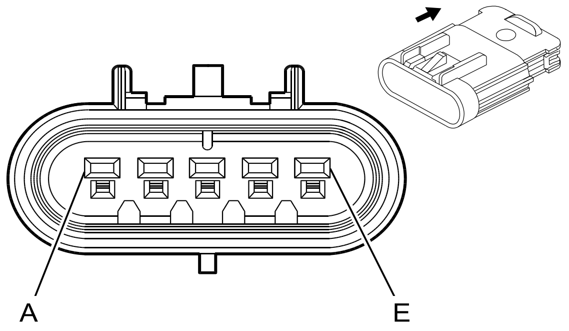


1334521

Connector Part Information

Harness Type: Engine

OEM Connector: 15326822

Service Connector: 13585858

Description: 5-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M

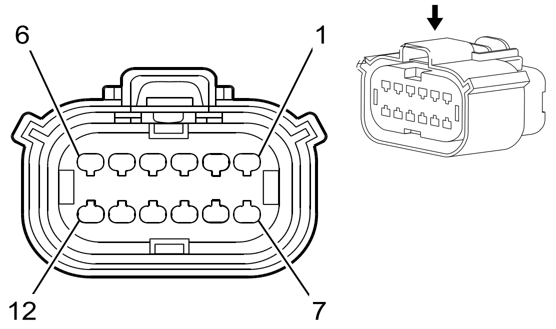
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X159 Engine Harness to Camshaft Position Sensor Jumper Harness (L96/LC8)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GY/BU	5300	I	—	Camshaft Position Intake Sensor Control 1	A	0.5	GY/BU	5300	II	—
B	0.5	BK/GN	5301	I	—	Camshaft Position Intake Sensor Low Reference 1	B	0.5	BK/GN	5301	II	—
C	0.5	YE/VT	5275	I	—	Camshaft Position Intake Sensor 1	C	0.5	YE/VT	5275	II	—
D	0.5	VT/BN	5284	I	—	Camshaft Phaser Intake Solenoid 1	D	0.5	VT/BN	5284	II	—
E	0.5	BK/BN	6753	I	—	Cam Phaser W Low Reference	E	0.5	BK/BN	6753	II	—

X160 Engine Harness to Odd Fuel Injector Harness (L83/L86)



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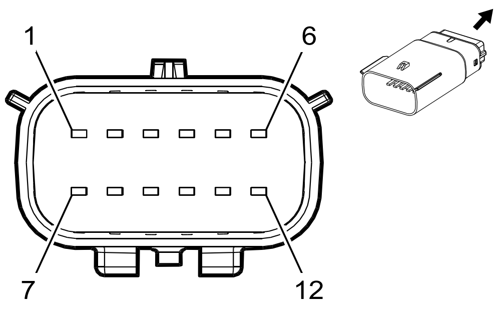


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13653762
Service Connector: 13503528
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Odd Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

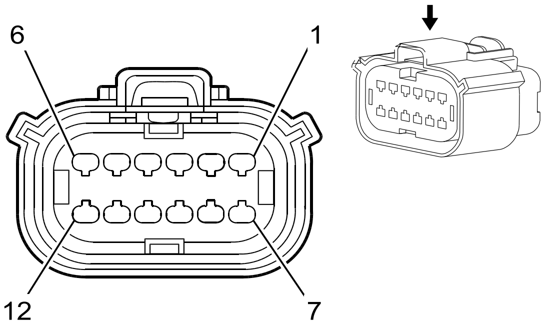
X160 Engine Harness to Odd Fuel Injector Harness (L83/L86)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/WH	4901	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	1	0.75	BN/WH	4901	II	—
2	0.75	GN/BK	4903	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	2	0.75	GN/BK	4903	II	—
3	0.75	GN/WH	4905	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	3	0.75	GN/WH	4905	II	—
4	0.75	WH/YE	4907	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	4	0.75	WH/YE	4907	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	5	0.75	BN	4801	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Harness to Odd Fuel Injector Harness (L83/L86) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.75	GN	4803	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	7	0.75	GN	4803	II	—
8	0.75	WH/GN	4805	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	8	0.75	WH/GN	4805	II	—
9	0.75	YE/GY	4807	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	9	0.75	YE/GY	4807	II	—
10	0.5	BN/RD	2917	I	—	Fuel Rail Pressure Sensor 5V Reference	10	0.5	BN/RD	2917	II	—
11	0.5	BU/WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/WH	2918	II	—
12	0.5	BK/GN	2919	I	—	Fuel Rail Pressure Sensor Low Reference	12	0.5	BK/GN	2919	II	—

X160 Engine Harness to Odd Fuel Injector Harness (L8B)



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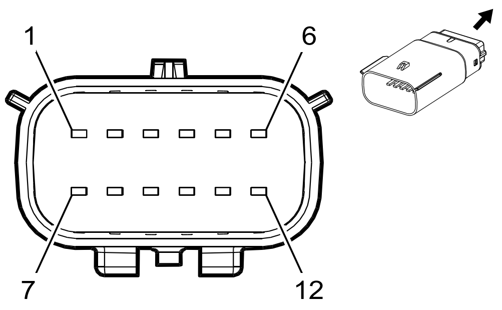


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13653762
Service Connector: 13503528
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Odd Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

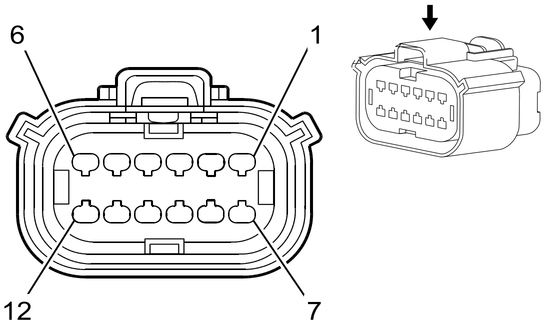
X160 Engine Harness to Odd Fuel Injector Harness (L8B)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/WH	4901	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	1	0.75	BN/WH	4901	II	—
2	0.75	GN/BK	4903	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	2	0.75	GN/BK	4903	II	—
3	0.75	GN/WH	4905	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	3	0.75	GN/WH	4905	II	—
4	0.75	WH/YE	4907	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	4	0.75	WH/YE	4907	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	5	0.75	BN	4801	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Harness to Odd Fuel Injector Harness (L8B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.75	GN	4803	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	7	0.75	GN	4803	II	—
8	0.75	WH/ GN	4805	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	8	0.75	WH/ GN	4805	II	—
9	0.75	YE/ GY	4807	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	9	0.75	YE/ GY	4807	II	—
10	0.5	BN/ RD	2917	I	—	Fuel Rail Pressure Sensor 5V Reference	10	0.5	BN/ RD	2917	II	—
11	0.5	BU/ WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/ WH	2918	II	—
12	0.5	BK/ GN	2919	I	—	Fuel Rail Pressure Sensor Low Reference	12	0.5	BK/ GN	2919	II	—

X160 Engine Harness to Fuel Injector Rail Harness (LV3)



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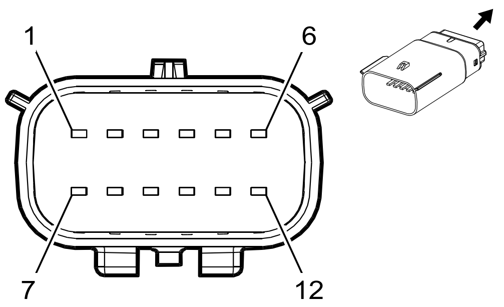


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13653762
Service Connector: 13503528
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector Rail
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

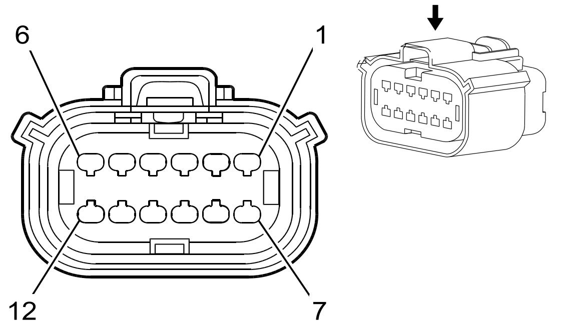
X160 Engine Harness to Fuel Injector Rail Harness (LV3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BN/ WH	4901	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	2	0.75	BN/ WH	4901	III	—
3	0.75	GN/ BK	4903	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	3	0.75	GN/ BK	4903	III	—
4	0.75	GN/ WH	4905	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	4	0.75	GN/ WH	4905	III	—
5	0.75	BN	4801	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	5	0.75	BN	4801	III	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X160 Engine Harness to Fuel Injector Rail Harness (LV3) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	GN	4803	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	8	0.75	GN	4803	III	—
9	0.75	WH/GN	4805	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	9	0.75	WH/GN	4805	III	—
10	0.5	BN/RD	2917	II	—	Fuel Rail Pressure Sensor 5V Reference	10	0.5	BN/RD	2917	III	—
11	0.5	BU/WH	2918	II	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/WH	2918	III	—
12	0.5	BK/GN	2919	II	—	Fuel Rail Pressure Sensor Low Reference	12	0.5	BK/GN	2919	III	—

X161 Engine Harness to Even Fuel Injector Harness (L83/L86/L8B)



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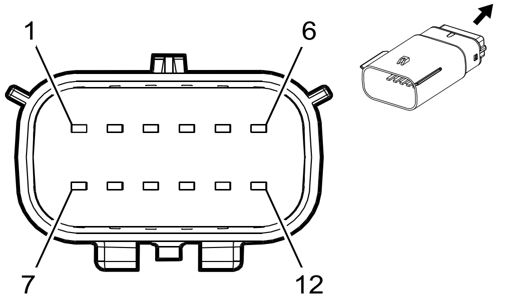


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13922706
Service Connector: 13503528
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Even Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

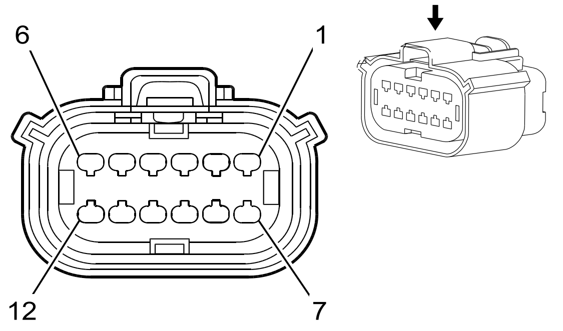
X161 Engine Harness to Even Fuel Injector Harness (L83/L86/L8B)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/GN	4902	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	1	0.75	BN/GN	4902	II	—
2	0.75	BU/WH	4904	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	2	0.75	BU/WH	4904	II	—
3	0.75	VT	4906	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	3	0.75	VT	4906	II	—
4	0.75	WH/GN	4908	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	4	0.75	WH/GN	4908	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	5	0.75	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X161 Engine Harness to Even Fuel Injector Harness (L83/L86/L8B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	GY/ BU	4804	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	8	0.75	GY/ BU	4804	II	—
9	0.75	GN/ VT	4806	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	9	0.75	GN/ VT	4806	II	—
10	0.75	GY	4808	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	10	0.75	GY	4808	II	—
11	0.75	VT/ BK	7300	I	—	High Pressure Fuel Pump Actuator Low - Control	11	0.75	VT/ BK	7300	II	—
12	0.75	YE	7301	I	—	High Pressure Fuel Pump Actuator High - Control	12	0.75	YE	7301	II	—

X161 Engine Harness to Even Fuel Injector Harness (LV3)



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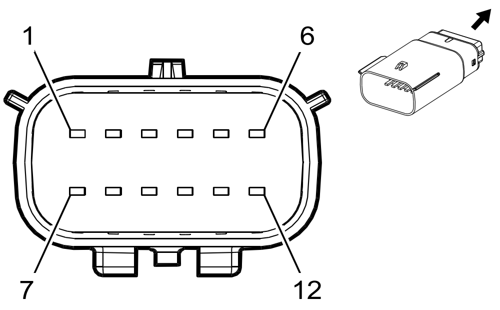


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13863397
Service Connector: 19329931
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Even Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575808	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

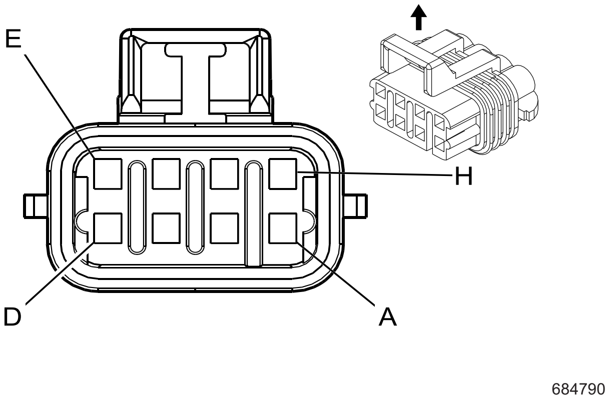
X161 Engine Harness to Even Fuel Injector Harness (LV3)

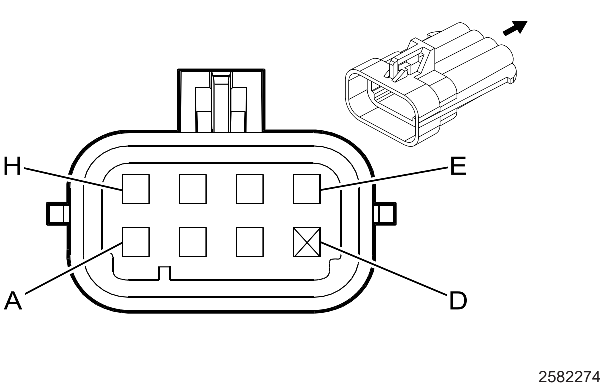
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BN/GN	4902	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	2	0.75	BN/GN	4902	II	—
3	0.75	BU/WH	4904	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	3	0.75	BU/WH	4904	II	—
4	0.75	VT	4906	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	4	0.75	VT	4906	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	5	0.75	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X161 Engine Harness to Even Fuel Injector Harness (LV3) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	GY/BU	4804	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	8	0.75	GY/BU	4804	II	—
9	0.75	GN/VT	4806	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	9	0.75	GN/VT	4806	II	—
10	0.75	VT/BK	7300	I	—	High Pressure Fuel Pump Actuator Low - Control	10	0.75	VT/BK	7300	II	—
11	0.75	YE	7301	I	—	High Pressure Fuel Pump Actuator High - Control	11	0.75	YE	7301	II	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X170 Engine Harness to Ignition Coil Harness





Connector Part Information

Harness Type: Engine
OEM Connector: 12047938
Service Connector: 13580883
Description: 8-Way F 150 Metri-Pack Series, Sealed (L-GY)

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15496016
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (GY)

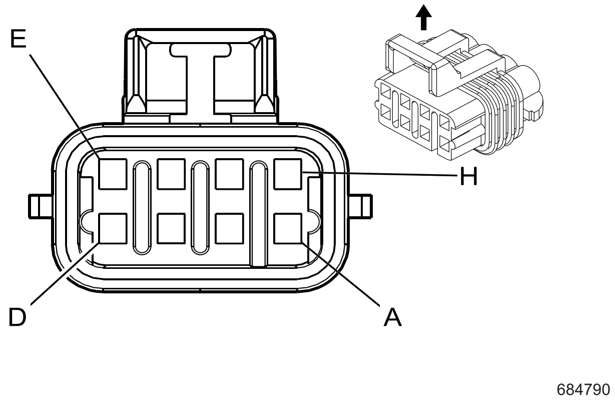
Terminal Part Information

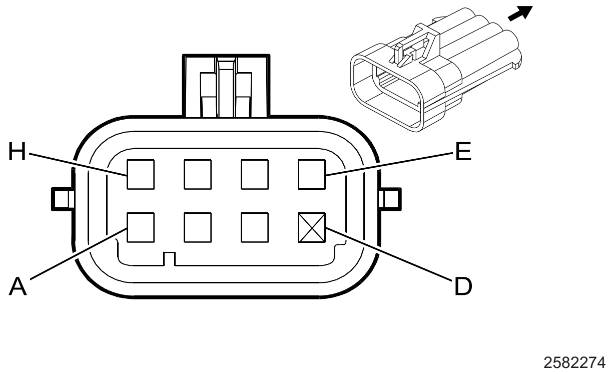
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X170 Engine Harness to Ignition Coil Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	BK	350	I	—	Ground	A	0.8	BK	151	II	—
B	0.5	GN/ GY	2127	I	—	Ignition Control 7	B	0.5	RD	2127	II	—
C	0.5	BU/ GY	2125	I	—	Ignition Control 5	C	0.5	GN	2125	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—
E	0.5	BK/ BU	2129	I	—	Ignition Control Low Reference Bank 1	E	0.5	BN	2129	II	—
F	0.5	GN/ BU	2123	I	—	Ignition Control 3	F	0.5	BU	2123	II	—
G	0.5	BU/ VT	2121	I	—	Ignition Control 1	G	0.5	VT	2121	II	—
H	0.75	VT/ BU	5291	I	—	Powertrain Main Relay Fused Supply 2	H	0.8	PK	39	II	—

X171 Engine Harness to Ignition Coil Harness





Connector Part Information

Harness Type: Engine
OEM Connector: 12047938
Service Connector: 13580883
Description: 8-Way F 150 Metri-Pack Series, Sealed (L-GY)

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15496016
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (GY)

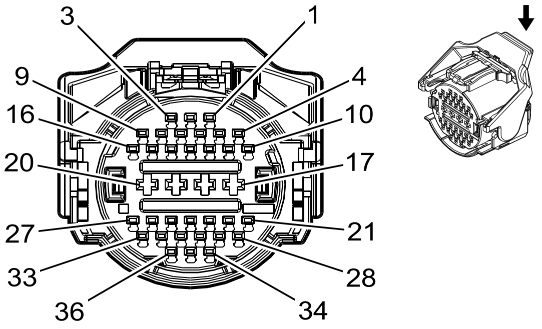
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X171 Engine Harness to Ignition Coil Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	BK	350	I	—	Ground	A	0.8	BK	151	II	—
B	0.5	BU/WH	2122	I	—	Ignition Control 2	B	0.5	RD	2127	II	—
C	0.5	YE/BU	2124	I	—	Ignition Control 4	C	0.5	GN	2125	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—
E	0.5	BK/GY	2130	I	—	Ignition Control Low Reference Bank 2	E	0.5	BN	2129	II	—
F	0.5	BN/BU	2126	I	—	Ignition Control 6	F	0.5	BU	2123	II	—
G	0.5	VT/WH	2128	I	—	Ignition Control 8	G	0.5	VT	2121	II	—
H	0.75	VT/BU	5292	I	—	Powertrain Main Relay Fused Supply 3	H	0.8	PK	39	II	—

X175 Engine Harness to Transmission Harness (L83/L86)



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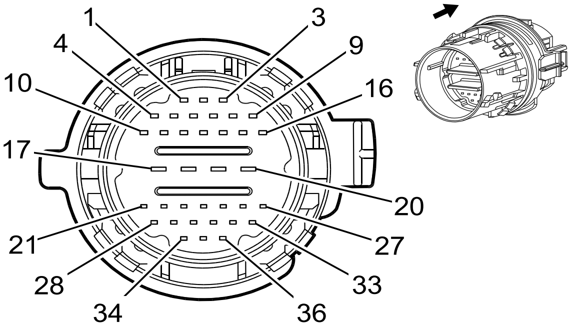


3977661

Connector Part Information

Harness Type: Engine
OEM Connector: 15504573
Service Connector: 19329922
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Transmission
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 36-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119772	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
II	19300445	J-35616-16 (LT GN)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X175 Engine Harness to Transmission Harness (L83/L86)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/WH	6380	II	—	TCC On/Off Solenoid A Control	1	0.5	GN/WH	6380	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	YE/BN	6404	II	—	Clutch E Control	3	0.5	YE/BN	6404	III	—
4	0.5	GY/GN	6403	II	—	Clutch D Control	4	0.5	GY/GN	6403	III	—
5	0.5	BN	6400	II	—	Clutch A Control	5	0.5	BN	6400	III	—
6	0.5	BU	6401	II	—	Clutch B Control	6	0.5	BU	6401	III	—
7	0.5	YE/BN	6210	II	—	TCC On/Off Solenoid B Control	7	0.5	YE/BN	6210	III	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch C Control	10	0.5	GY	6402	III	—

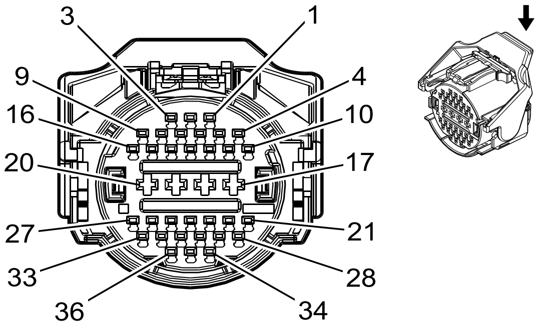
X175 Engine Harness to Transmission Harness (L83/L86) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	BK/ BN	586	II	—	Transmission Oil Temperature Sensor Low Reference	11	0.5	BK/ BN	586	III	—
12	0.5	BN/ WH	585	II	—	Transmission Oil Temperature Sensor Signal	12	0.5	BN/ WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH/ BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH/ BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.75	GN/ GY	6387	I	—	Transmission High Side Driver 1 Signal Driver	18	0.75	GN/ GY	6387	III	—
19	0.75	GY/ BN	6388	I	—	Transmission High Side Driver 2 Signal	19	0.75	GY/ BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	WH/ BK	5983	II	—	PRNDL C Signal	21	0.5	WH/ BK	5983	III	—
22	0.5	VT/ WH	5981	II	—	PRNDL A Signal	22	0.5	VT/ WH	5981	III	—
23	0.5	GY/ WH	4168	II	—	PRNDL P Signal	23	0.5	GY/ WH	4168	III	—
24	0.5	GY/ BU	6358	II	—	Output Speed Signal	24	0.5	GY/ BU	6358	III	—
25	0.5	YE/ GN	4170	II	—	Transmission Position Sensor B 9V Reference	25	0.5	YE/ GN	4170	III	—
26	0.5	GN/ YE	6353	II	—	Input Speed Signal	26	0.5	GN/ YE	6353	III	—
27	0.5	YE/ BU	4171	II	—	Transmission Position Sensor A 9V Reference	27	0.5	YE/ BU	4171	III	—
28	0.5	GY/ BN	5982	II	—	PRNDL B Signal	28	0.5	GY/ BN	5982	III	—
29	0.5	YE/ BU	4171	II	—	Transmission Position Sensor A 9V Reference	29	0.5	YE/ BU	4171	III	—
30	0.5	BK/ GY	3927	II	—	IMS Mode Switch Low Reference	30	0.5	BK/ GY	3927	III	—
31	0.5	YE/ GN	4170	II	—	Transmission Position Sensor B 9V Reference	31	0.5	YE/ GN	4170	III	—

X175 Engine Harness to Transmission Harness (L83/L86) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
32	0.5	GN/ VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	GN/ VT	4510	III	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	GY/ YE	4169	II	—	PRNDL S Signal	34	0.5	GY/ YE	4169	III	—
35	0.5	WH/ GY	1786	II	—	Transmission Park/Neutral Signal 1	35	0.5	WH/ GY	1786	III	—
36	—	—	—	—	—	Not Occupied	36	—	—	—	—	—

X175 Engine Harness to Transmission Harness (L8B)



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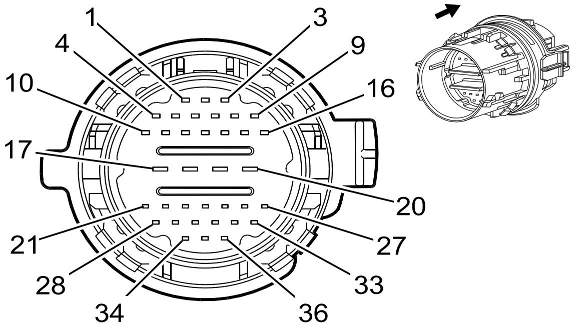


3977661

Connector Part Information

Harness Type: Engine
OEM Connector: 15532799
Service Connector: 19332681
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Transmission
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 36-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119772	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
II	19300445	J-35616-16 (LT GN)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X175 Engine Harness to Transmission Harness (L8B)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/WH	6380	II	—	TCC On/Off Solenoid A Control	1	0.5	GN/WH	6380	III	—
2	0.5	VT/BU	5294	II	—	Powertrain Main Relay Fused Supply 5	2	0.5	VT/BU	5294	III	—
3	0.5	YE/BN	6404	II	—	Clutch E Control	3	0.5	YE/BN	6404	III	—
4	0.5	GY/GN	6403	II	—	Clutch D Control	4	0.5	GY/GN	6403	III	—
5	0.5	BN	6400	II	—	Clutch A Control	5	0.5	BN	6400	III	—
6	0.5	BU	6401	II	—	Clutch B Control	6	0.5	BU	6401	III	—
7	0.5	YE/BN	6210	II	—	TCC On/Off Solenoid B Control	7	0.5	YE/BN	6210	III	—

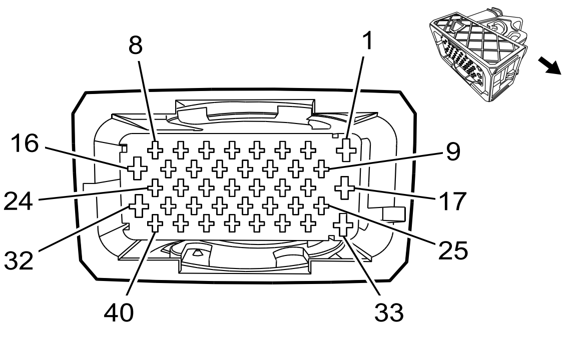
X175 Engine Harness to Transmission Harness (L8B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	WH/ GY	4578	II	—	Surge Accumulator Solenoid Low Side Control	8	0.5	WH/ GY	4578	III	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch C Control	10	0.5	GY	6402	III	—
11	0.5	BK/ BN	586	II	—	Transmission Oil Temperature Sensor Low Reference	11	0.5	BK/ BN	586	III	—
12	0.5	BN/ WH	585	II	—	Transmission Oil Temperature Sensor Signal	12	0.5	BN/ WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH/ BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH/ BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.75	GN/ GY	6387	I	—	Transmission High Side Driver 1 Signal Driver	18	0.75	GN/ GY	6387	III	—
19	0.75	GY/ BN	6388	I	—	Transmission High Side Driver 2 Signal	19	0.75	GY/ BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	WH/ BK	5983	II	—	PRNDL C Signal	21	0.5	WH/ BK	5983	III	—
22	0.5	VT/ WH	5981	II	—	PRNDL A Signal	22	0.5	VT/ WH	5981	III	—
23	0.5	GY/ WH	4168	II	—	PRNDL P Signal	23	0.5	GY/ WH	4168	III	—
24	0.5	GY/ BU	6358	II	—	Output Speed Signal	24	0.5	GY/ BU	6358	III	—
25	0.5	YE/ GN	4170	II	—	Transmission Position Sensor B 9V Reference	25	0.5	YE/ GN	4170	III	—
26	0.5	GN/ YE	6353	II	—	Input Speed Signal	26	0.5	GN/ YE	6353	III	—
27	0.5	YE/ BU	4171	II	—	Transmission Position Sensor A 9V Reference	27	0.5	YE/ BU	4171	III	—
28	0.5	GY/ BN	5982	II	—	PRNDL B Signal	28	0.5	GY/ BN	5982	III	—

X175 Engine Harness to Transmission Harness (L8B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0.5	YE/ BU	4171	II	—	Transmission Position Sensor A 9V Reference	29	0.5	YE/ BU	4171	III	—
30	0.5	BK/ GY	3927	II	—	IMS Mode Switch Low Reference	30	0.5	BK/ GY	3927	III	—
31	0.5	YE/ GN	4170	II	—	Transmission Position Sensor B 9V Reference	31	0.5	YE/ GN	4170	III	—
32	0.5	GN/ VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	GN/ VT	4510	III	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	GY/ YE	4169	II	—	PRNDL S Signal	34	0.5	GY/ YE	4169	III	—
35	0.5	WH/ GY	1786	II	—	Transmission Park/Neutral Signal 1	35	0.5	WH/ GY	1786	III	—
36	—	—	—	—	—	Not Occupied	36	—	—	—	—	—

X185 Chassis Harness to Body Harness



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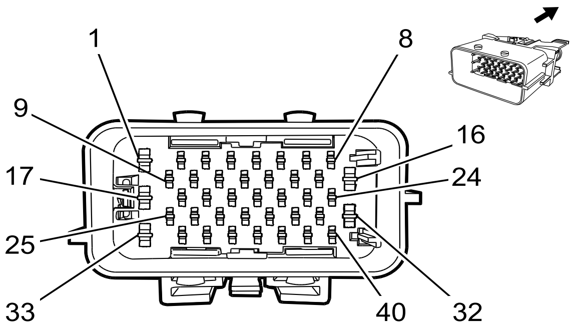


2339640

Connector Part Information

Harness Type: Chassis
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 13603208
Service Connector: 13576551
Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Available	Not Available	Not Available	Not Available
II	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13578881	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
V	13580827	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VI	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X185 Chassis Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/BK	7633	I	—	Integrated Trailer Brake Controller User Gain Signal	1	0.5	GN/BK	7633	V	—
2	0.35	GN/BN	2087	I	—	Combined Vehicle Inertial Sensor Supply Voltage	2	0.35	GN/BN	2087	VI	—
3	0.5	YE	7635	I	—	Integrated Trailer Brake Controller Manual Apply Signal	3	0.5	YE	7635	II	—

X185 Chassis Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
4	0.5	BU/ RD	7632	I	—	Integrated Trailer Brake Controller Switch 5V Reference	4	0.5	BU/ RD	7632	II	—
5	0.5	BN	7634	I	—	Integrated Trailer Brake Controller Redundant Manual Apply Signal	5	0.5	BN	7634	II	—
6	0.5	BK/ BN	7631	I	—	Integrated Trailer Brake Controller Switch Low Reference	6	0.5	BK/ BN	7631	II	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—
8	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	8	0.5	GN	5060	II	—
9	0.35	BN/ WH	2374	I	—	Object Sensor Control	9	0.35	BN/ WH	2374	VI	—
10	0.75	YE/ BN	967	I	—	—	10	0.75	YE/ BN	967	III	—
11	0.35	YE	2375	I	—	Left Rear Corner Object Sensor Signal	11	0.35	YE	2375	VI	—
12	0.35	YE/ BU	2376	I	—	Left Rear Middle Object Sensor Signal	12	0.35	YE/ BU	2376	VI	—
13	0.35	YE/ VT	2378	I	—	Right Rear Corner Object Sensor Signal	13	0.35	YE/ VT	2378	VI	—
14	0.35	YE/ WH	2377	I	—	Right Rear Middle Object Sensor Signal	14	0.35	YE/ WH	2377	VI	—
15	0.75	RD/ GN	968	I	—	—	15	0.75	RD/ GN	968	III	—
16	0.5	GN/ YE	6846	I	—	Rear License Lamp Control	16	0.5	GN/ YE	6846	V	—
17	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	17	0.5	WH/ BU	5986	V	—
18	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	18	0.5	BU	2500	II	—
19	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	19	0.5	WH	2501	II	—

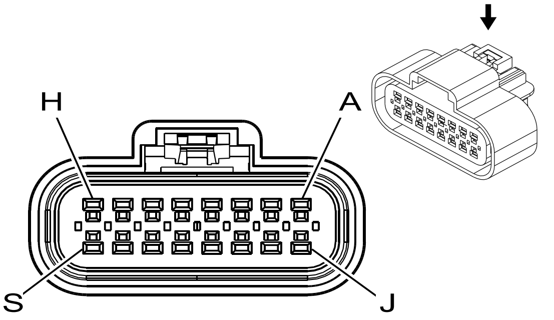
X185 Chassis Harness to Body Harness (cont'd)

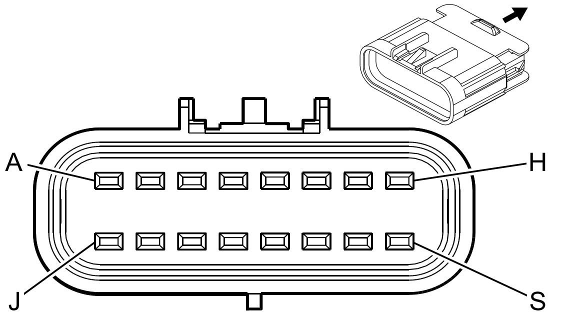
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
20	0.5	VT/ YE	5985	I	—	Accessory Wakeup Serial Data	20	0.5	VT/ YE	5985	II	—
21	0.35	BK/ GY	2379	I	—	Object Sensor Low Reference	21	0.35	BK/ GY	2379	VI	—
22	—	—	—	—	—	Not Occupied	22	—	—	—	—	—
23	0.5	GY/ BN	309	I	—	Right Park Lamp Control	23	0.5	GY/ BN	309	II	—
24	0.75	BN/ YE	294	I	—	Door Lock Actuator Unlock Control	24	0.75	BN/ YE	294	III	—
25	0.75	GY	295	I	—	Door Lock Actuator Lock Control	25	0.75	GY	295	III	—
26	0.5	BU/ BK	7493	I	—	High Speed GMLAN Serial Data (+)3	26	0.5	BU/ BK	7493	II	—
27	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	27	0.5	WH	7494	II	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.75	BK	2550	I	—	Ground	29	0.75	BK	2550	III	—
30	0.5	BK	6974	I	—	Camera Low Reference	30	0.5	BK	6974	II	—
31	0.75	WH/ BN	6815	I	—	Inadvertent Power Control	31	0.75	WH/ BN	6815	III	—
32	2.5	BU	47	I	—	Trailer Auxiliary Control	32	2.5	BU	47	IV	—
33	2.5	RD/ BU	1842	I	—	Battery Positive Voltage	33	2.5	RD/ BU	1842	IV	—
34	0.5	GY/ GN	6190	I	—	Lift Glass/ Rear Compartment Lid Exterior Release Signal	34	0.5	GY/ GN	6190	II	—
35	0.5	YE	9003	I	—	—	35	0.5	YE	9003	II	—
36	0.75	WH/ VT	1430	I	—	Exterior Courtesy Lamp Control	36	0.75	WH/ VT	1430	III	—
37	0.35	GY/ YE	6972	I	—	Camera Signal 2 +	37	0.35	GY/ YE	6972	VI	—
38	0.35	WH/ BU	6973	I	—	Camera Signal 2	38	0.35	WH/ BU	6973	VI	—
39	0.35	BU/ YE	6844	I	—	ABS/TCS Hill Descent Control Switch Signal	39	0.35	BU/ YE	6844	VI	—

X185 Chassis Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
40	0.5	GN/ GY	817	I	—	Vehicle Speed Signal	40	0.5	GN/ GY	817	II	—

X191 Engine Harness to Engine Harness (PTO)





Connector Part Information

Harness Type: Engine
OEM Connector: 15326863
Service Connector: 19180282
Description: 16-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 15326868
Service Connector: 15306364
Description: 16-Way M 150 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575412	J-35616-14 (GN)	J-38125-553	12191819	Delphi 8	2	1
II	13575412	J-35616-14 (GN)	J-38125-553	12191819	Delphi 8	E	1
III	13575397	J-35616-3 (GY)	J-38125-553	15326269	Delphi 19	E	4

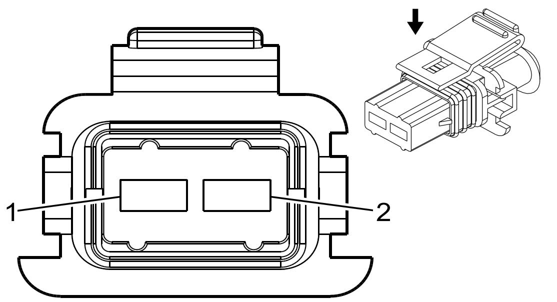
X191 Engine Harness to Engine Harness (PTO)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	BN/ WH	6085	I	—	Power Take Off Remote Engine Start Switch Signal	A	0.5	BN/ WH	6085	III	—
B	0.75	BN	6381	I	—	Power Take Off Relay Engage Signal	B	—	—	—	—	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.75	BK	550	I	—	Ground	D	—	—	—	—	—
E - F	—	—	—	—	—	Not Occupied	E - F	—	—	—	—	—
G	0.75	YE	2522	I	—	Power Take Off Status Signal	G	—	—	—	—	—
H	0.5	VT/ BU	2562	II	—	Power Take Off Relay Coil Control	H	—	—	—	—	—

X191 Engine Harness to Engine Harness (PTO) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
J	0.5	WH/GN	6142	II	—	Power Take Off Engine Shutdown Signal	J	0.5	BN/WH	6085	III	—
K	0.75	RD/VT	2640	I	—	Battery Positive Voltage	K	—	—	—	—	—
L - M	—	—	—	—	—	Not Occupied	L - M	—	—	—	—	—
N	0.5	BU/GY	6089	II	—	Power Take Off Remote Switch Set Signal 1	N	—	—	—	—	—
P	—	—	—	—	—	Not Occupied	P	—	—	—	—	—
R	0.5	VT/WH	239	II	—	Run/Crank Ignition 1 Voltage	R	—	—	—	—	—
S	—	—	—	—	—	Not Occupied	S	—	—	—	—	—

X192 Engine Harness to Accessory Harness (L96+VYU)



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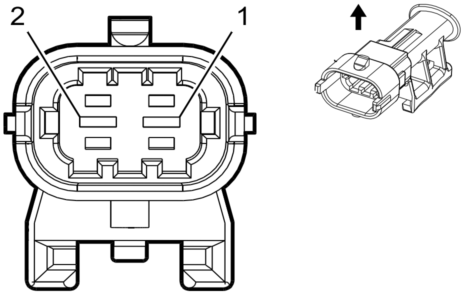


2667643

Connector Part Information

Harness Type: Engine
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: Accessory
OEM Connector: 10864494
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 2.8 Timer Series, Sealed (BK)

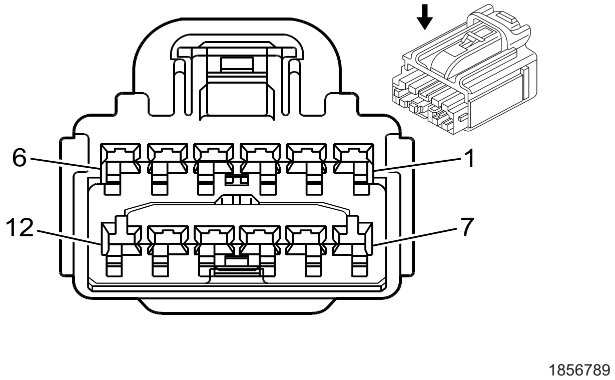
Terminal Part Information

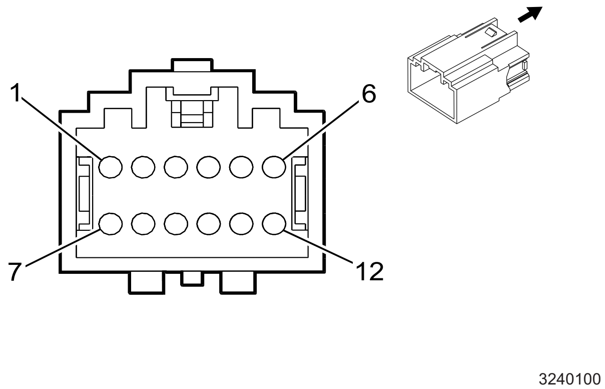
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X192 Engine Harness to Accessory Harness (L96+VYU)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BN	25	I	—	Charge Indicator Control	1	0.5	BN	25	II	—
2	0.5	GY	23	I	—	Generator Field Duty Cycle Signal	2	0.5	GY	23	II	—

X201 Steering Column Harness to Instrument Panel Harness (E29)





Connector Part Information

Harness Type: Steering Column
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13507705
Service Connector: 88988266
Description: 12-Way M 1.5 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13575818	J-35616-3 (GY)	J-38125-553	Not Available	Not Available	Not Available	Not Available

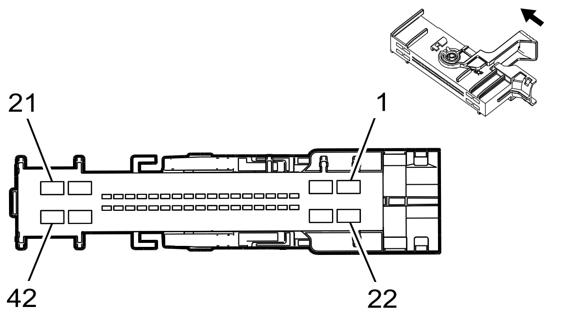
X201 Steering Column Harness to Instrument Panel Harness (E29)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN	6136	I	—	Control	1	0.35	BN	6136	II	—
2	0.35	RD/YE	3040	I	—	Battery Positive Voltage	2	0.35	RD/YE	3040	II	—
3	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	3	0.5	BU/YE	6105	II	—
4	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	4	0.5	BU/YE	6105	II	—
5	0.35	GN/BN	2087	I	—	Combined Vehicle Inertial Sensor Supply Voltage	5	0.35	GN/BN	2087	II	—
6	0.5	BK/WH	1851	I	—	Signal Ground	6	0.5	BK/WH	1851	II	—
7	0.35	RD/BU	540	I	—	Battery Positive Voltage	7	0.35	RD/BU	540	II	—

X201 Steering Column Harness to Instrument Panel Harness (E29) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.35	GN/ WH	111	I	—	Hazard Switch Signal	8	0.35	GN/ WH	111	II	—
9	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	9	0.5	WH	6106	II	—
10	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	10	0.5	WH	6106	II	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.5	BK	1050	I	—	Ground	12	0.5	BK	1050	II	—

X201 Steering Column Harness to Instrument Panel Harness (-E29)



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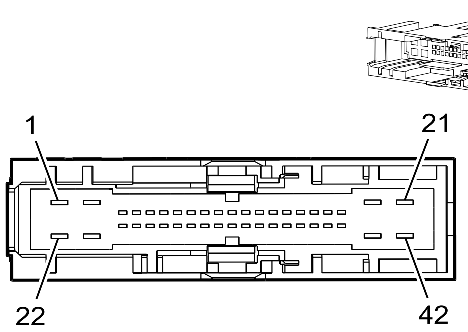


3240116

Connector Part Information

Harness Type: Steering Column
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 42-Way F

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33155180
Service Connector: 13597187
Description: 42-Way M 0.64, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13575823	J-35616-5 (PU)	J-38125-11A	7114-4110-02	Yazaki 9	E	C
III	19301762	J-35616-65B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IV	19301763	J-35616-65B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

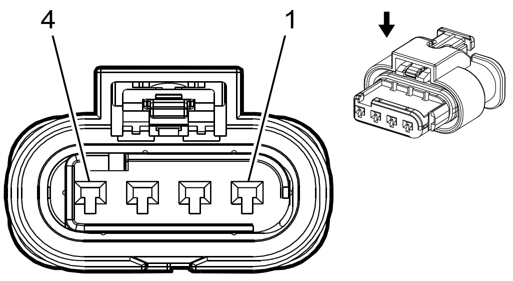
X201 Steering Column Harness to Instrument Panel Harness (-E29)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35	RD/ BU	540	I	—	Battery Positive Voltage	4	0.35	RD/ BU	540	III	—
5 - 8	—	—	—	—	—	Not Occupied	5 - 8	—	—	—	—	—
9	0.35	GN/ BN	2087	I	—	Combined Vehicle Inertial Sensor Supply Voltage	9	0.35	GN/ BN	2087	III	—
10	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	10	0.5	BU/ YE	6105	IV	—
11	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	11	0.5	BU/ YE	6105	IV	—

X201 Steering Column Harness to Instrument Panel Harness (-E29) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12 - 15	—	—	—	—	—	Not Occupied	12 - 15	—	—	—	—	—
16	0.35	GN/ WH	111	I	—	Hazard Switch Signal	16	0.35	GN/ WH	111	III	—
17	0.35	YE/ WH	816	I	—	Brake Transmission Shift Interlock Solenoid Control	17	0.35	YE/ WH	816	III	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	0.5	BK	1050	I	—	Ground	20	0.5	BK	1050	II	—
21 - 24	—	—	—	—	—	Not Occupied	21 - 24	—	—	—	—	—
25	0.35	RD/ YE	3040	I	—	Battery Positive Voltage	25	0.35	RD/ YE	3040	III	—
26 - 29	—	—	—	—	—	Not Occupied	26 - 29	—	—	—	—	—
30	0.5	GN/ WH	7527	I	—	Local Interconnect Network Serial Data Bus 5	30	0.5	GN/ WH	7527	IV	—
31	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	31	0.5	WH	6106	IV	—
32	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	32	0.5	WH	6106	IV	—
33	0.5	GN/ BK	3894	I	—	Local Interconnect Network Serial Data Bus 12	33	0.5	GN/ BK	3894	IV	—
34 - 37	—	—	—	—	—	Not Occupied	34 - 37	—	—	—	—	—
38	0.35	BN	6136	I	—	Control	38	0.35	BN	6136	III	—
39 - 40	—	—	—	—	—	Not Occupied	39 - 40	—	—	—	—	—
41	0.5	VT/ WH	1139	I	—	Run/Crank Ignition 1 Voltage	41	0.5	VT/ WH	1139	II	—
42	0.5	BK/ WH	1851	I	—	Signal Ground	42	0.5	BK/ WH	1851	II	—

X205 Instrument Panel Harness to Instrument Panel Extension Harness



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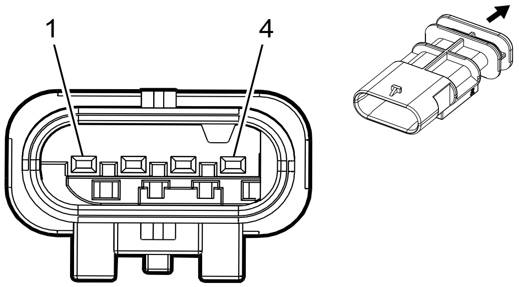


2684557

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed (YE)

Connector Part Information

Harness Type: Instrument Panel Extension
OEM Connector: 13854529
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series, Sealed (YE)

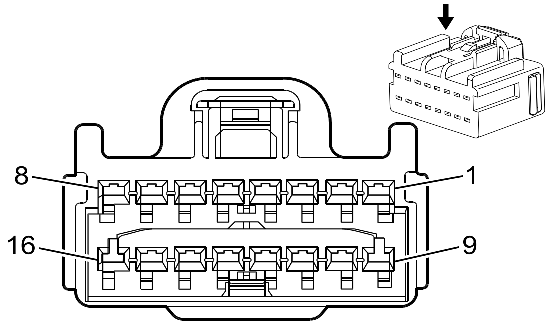
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X205 Instrument Panel Harness to Instrument Panel Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE/ OG	3025	I	—	Passenger IP Module Stage 1 High Control	1	0.35	YE/ OG	3025	II	—
2	0.35	OG/ WH	3024	I	—	Passenger IP Module Stage 1 Low Control	2	0.35	OG/ WH	3024	II	—
3	0.35	GY/ OG	3027	I	—	Passenger IP Module Stage 2 High Control	3	—	—	—	—	—
4	0.35	OG/ VT	3026	I	—	Passenger IP Module Stage 2 Low Control	4	—	—	—	—	—

X206 Headliner Harness to Body Harness



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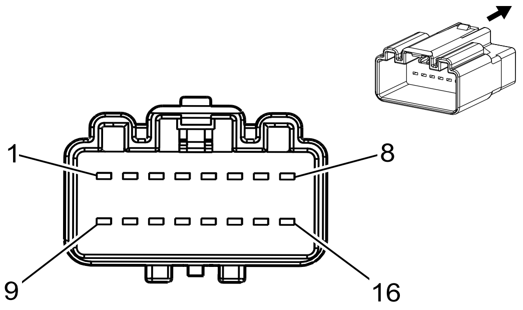


1483278

Connector Part Information

Harness Type: Headliner
OEM Connector: 10847013
Service Connector: 89047090
Description: 16-Way F 1.5 Kaizen Series (GN)

Connector Part Information

Harness Type: Body
OEM Connector: 13507433
Service Connector: 89047072
Description: 16-Way M 1.5 Kaizen Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	13575818	J-35616-3 (GY)	J-38125-553	Not Available	Not Available	Not Available	Not Available
III	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

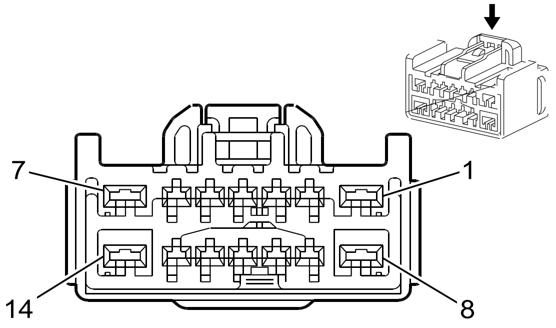
X206 Headliner Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.35	GN/ RD	2308	I	—	Passenger Air Bag Off Indicator Control	3	0.35	GN	2308	II	—
4	0.35	BU	2307	I	—	Passenger Air Bag On Indicator Control	4	0.35	BU	2307	II	—
5	0.35	VT/ WH	5234	I	—	Passenger Seat Belt Indicator Control	5	0.35	VT/ WH	5234	III	—
6	0.5	VT/ GY	1054	I	—	Stop Lamp Control	6	0.5	VT/ GY	1054	II	—
7 - 9	—	—	—	—	—	Not Occupied	7 - 9	—	—	—	—	—
10	0.35	GN/ BK	3008	I	—	Noise Reduction Microphone 1 Low Reference	10	0.35	GN/ BK	3008	II	—

X206 Headliner Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5 0.35	GY GN/WH	157 3005	I I	E29 NKC/UQS	Interior Lamp Control Noise Reduction Microphone 1 Signal	11	0.5 0.35	GY GN/BN	157 3005	II II	E29 NKC/UQS
12	0.5 0.35	WH/BN BU/BK	6815 3009	I I	E29 NKC	Inadvertent Power Control Noise Reduction Microphone 2 Low Reference	12	0.5 0.35	WH/BN BU/BK	6815 3009	II II	E29 NKC
13	0.35	BU/YE	3006	I	—	Noise Reduction Microphone 2 Signal	13	0.35	BU/YE	3006	II	—
14	0.35 0.35	GY/BU GY/BN	156 3010	I I	E29 NKC	Courtesy Lamp Switch Signal Noise Reduction Microphone 3 Low Reference	14	0.35 0.35	GY GY/BN	156 3010	II II	E29 NKC
15	0.35	GY/BU	3007	I	—	Noise Reduction Microphone 3 Signal	15	0.35	GY/BU	3007	II	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—

X215 HVAC Harness to Instrument Panel Harness



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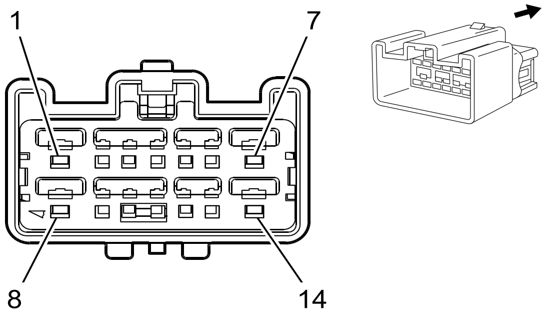


1283905

Connector Part Information

Harness Type: HVAC
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846900
Service Connector: 88956523
Description: 14-Way M 1.5, 2.8 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13575818	J-35616-3 (GY)	J-38125-553	Not Available	Not Available	Not Available	Not Available

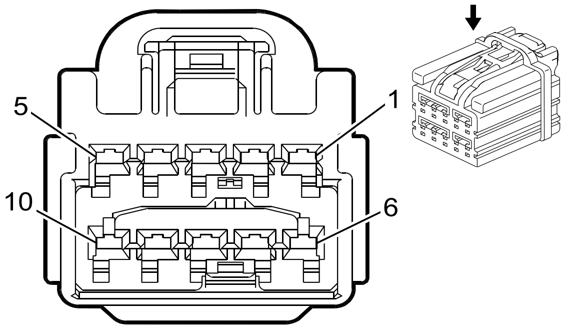
X215 HVAC Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	2	0.35	GN	5060	II	—
3	0.35	GN/ YE	7531	I	—	Local Interconnect Network Serial Data Bus 9	3	0.35	GN/ YE	7531	II	—
4	0.5	RD/ VT	3340	I	—	Battery Positive Voltage	4	0.5	RD/ VT	3340	II	—
5	0.5	VT/ GY	539	I	—	Run/Crank Ignition 1 Voltage	5	0.5	VT/ GY	539	II	—
6 - 8	—	—	—	—	—	Not Occupied	6 - 8	—	—	—	—	—
9	0.5 0.35	BK/ WH BK/ WH	1851 1851	I I	E29 -E29	Signal Ground Signal Ground	9	0.5 0.35	BK/ WH BK/ WH	1851 1851	II II	E29 -E29

X215 HVAC Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.35	BK/ YE	1791	I	—	Air Temperature Door Control Low Reference	10	0.35	BK/ YE	1791	II	—
11	0.35	BU/ WH	734	I	—	Inside Air Temperature Sensor Signal	11	0.35	BU/ WH	734	II	—
12	0.35	GY	590	I	—	Solar Sensor Driver Signal	12	0.35	GY	590	II	—
13	0.35	YE/ VT	1783	I	—	Twilight Sentinel Delay Signal	13	0.35	YE/ VT	1783	II	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—

X216 Body Harness to HVAC Harness



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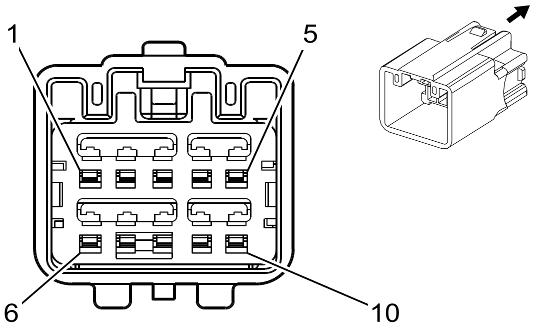


1732767

Connector Part Information

Harness Type: Body
OEM Connector: 10847018
Service Connector: 22708788
Description: 10-Way F YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: HVAC
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19301767	J-35616-2A (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

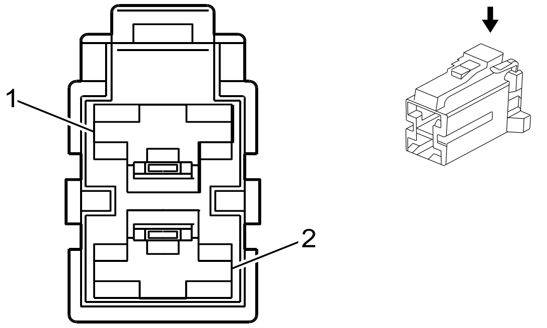
X216 Body Harness to HVAC Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35 0.35	BN/VT BN/VT	193 193	II I	— —	Rear Defog Relay Control Rear Defog Relay Control	4	0.35	BN/VT	193	III	—
5	0.5 0.5	BU/BN BU/BN	7573 7573	II I	— —	Electric Variable Displacement Supply Electric Variable Displacement Supply	5	0.5	BU/BN	7573	III	—
6	0.5 0.5	BU/YE BU/YE	7574 7574	II I	— —	Electric Variable Displacement Control Electric Variable Displacement Control	6	0.5	BU/YE	7574	III	—

X216 Body Harness to HVAC Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7 - 10	—	—	—	—	—	Not Occupied	7 - 10	—	—	—	—	—

X217 Body Harness to HVAC Harness



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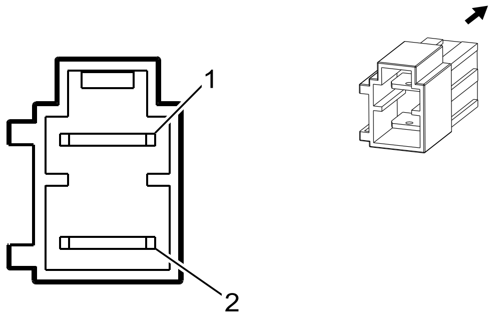


1989490

Connector Part Information

Harness Type: Body
OEM Connector: 10721337
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 56 Series (BK)

Connector Part Information

Harness Type: HVAC
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

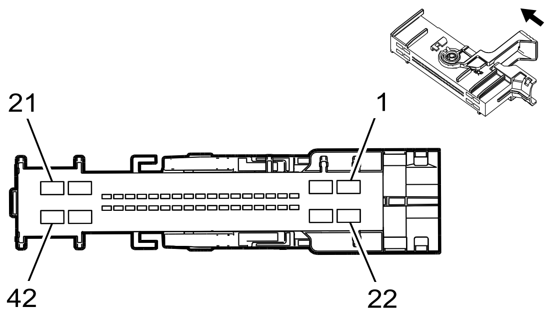
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-21 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X217 Body Harness to HVAC Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	4	RD/ VT	542	I	—	Battery Positive Voltage	1	4	RD/ VT	542	II	—
2	10	RD/ GY	642	I	—	Battery Positive Voltage	2	10	RD/ GY	642	II	—

X225 Body Harness to Instrument Panel Harness



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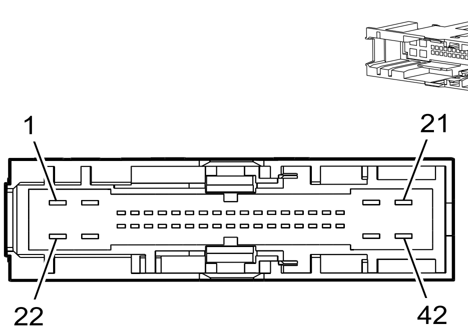


3240116

Connector Part Information

Harness Type: Body
OEM Connector: 33160247
Service Connector: 19301820
Description: 42-Way F 1.2, 2.8 Series (GY)

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33155179
Service Connector: 13586233
Description: 42-Way M 0.64, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13580025	J-35616-4A (PU)	J-38125-11A	7116-4111-02	Yazaki 9	E	A
II	19300649	J-35616-16 (LT GN)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19300649	J-35616-16 (LT GN)	J-38125-553	Not Available	Not Available	Not Available	Not Available
IV	19301752	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VI	13575824	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VII	19301762	J-35616-65B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VIII	19301763	J-35616-65B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IX	19329828	J-35616-5 (PU)	J-38125-212	1326029-1	Lear 17	E	C
X	19329828	J-35616-5 (PU)	J-38125-212	Not Available	Not Available	Not Available	Not Available

X225 Body Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75 0.75	BK YE/GY	2550 1956	IV I	— UQA/UQS/UQH-UQG	Ground Left Front Tweeter Speaker (-) Low Reference	1	0.75 0.75	BK YE/GY	2550 1956	X X	— —
2	1.5	BK	1850	IV	—	Ground	2	0.75	BK	1850	X	—

X225 Body Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	WH	6106	III	—	High Speed GMLAN Serial Data (-) 2	3	0.5	WH	6106	VIII	—
4	0.5 0.5	BU/ YE WH/ BN	6105 6815	III III	— —	High Speed GMLAN Serial Data (+) 2 Inadvertent Power Control	4	0.5 0.5	BU/ YE WH/ BN	6105 6815	VIII VIII	— —
5	0.35	GY/ WH	3272	III	—	Remote Function Actuator Control	5	0.35	GY/ WH	3272	VII	—
6	0.35	BU/ WH	3275	III	—	Remote Function Actuator Receive Signal	6	0.35	BU/ WH	3275	VII	—
7	0.35 0.35	GN/ BN BK/ GN	507 552	III III	— —	Wait To Start Indicator Control Sensor Low Reference	7	0.35 0.35	GN/ BN BK/ GN	507 552	VII VII	— —
8	0.5 0.5	GY/ VT GN	3998 3998	III III	— —	MOST Serial Data (+) MOST Serial Data (+)	8	0.5	GY/ VT	3998	VIII	—
9	0.5 0.35	RD/ WH BU/ YE	961 6844	III III	— BRS	— ABS/TCS Hill Descent Control Switch Signal	9	0.35	BU/ YE	6844	VII	—
10	0.35	VT	185	III	—	Cargo Lamp Switch Signal Low Washer Fluid Indicator Control	10	0.5 0.35	GY VT	158 185	VIII VII	— —
11	0.5	WH/ GN	3997	III	—	MOST Serial Data (-)	11	0.5	WH/ GN	3997	VIII	—
12	0.5	BN/ BU	118	III	—	Left Front Speaker Signal (-) 1	12	0.5	BN/ BU	118	VIII	—
13	0.75	BU/ VT	1134	II	—	Park Brake Switch Signal	13	0.5	BU/ VT	1134	VIII	—
14	0.5	GN	199	III	—	Left Rear Speaker Control (+)	14	0.5	GN	199	VIII	—
15	0.5	BU	2500	III	—	High Speed GMLAN Serial Data (+) 1	15	0.5	BU	2500	VIII	—
16	0.5	WH	2501	III	—	High Speed GMLAN Serial Data (-) 1	16	0.5	WH	2501	VIII	—

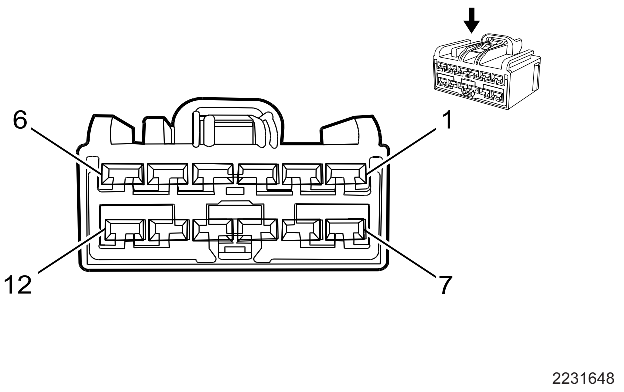
X225 Body Harness to Instrument Panel Harness (cont'd)

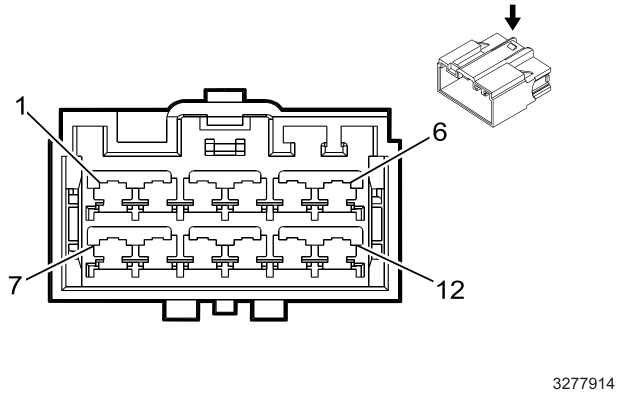
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.35	BU/GY	636	III	—	Outside Ambient Air Temperature Sensor Signal	17	0.35	BU/GY	636	VII	—
18	0.35	WH/GN	526	III	—	Stop Lamp Switch Signal	18	0.35	WH/GN	526	VII	—
19	0.35	BK/BU	61	III	—	Outside Ambient Temperature Sensor Low Reference	19	0.35	BK/BU	61	VII	—
20	0.5 0.75	BN/BU BN/BU	118 118	V V	— —	Left Front Speaker Signal (-) 1 Left Front Speaker Signal (-) 1	20	0.75	BN/BU	118	X	—
21	0.35	BN/WH	781	V	—	Driver Door Lock Switch Unlock Signal	21	0.35	BN/WH	781	IX	—
22	0.35 0.75	BN/YE YE/BU	780 1856	V I	— —	Driver Door Lock Switch Lock Signal Left Front Tweeter Speaker Control (+)	22	0.35 0.75	BN/YE YE/BU	780 1856	IX X	— —
23	0.35 0.5	GN WH/BU	4512 3691	V V	— —	Wireless Charging System Charge Indicator Control Trailer Brake Apply Signal	23	0.35 0.5	GN WH/BU	4512 3691	X X	— —
24	0.35	GN/WH	3438	III	—	Exhaust Brake Switch Signal	24	0.35	GN/WH	3438	VII	—
25	0.35	BN/WH	419	III	—	Check Engine Indicator Control	25	0.35	BN/WH	419	VII	—
26	0.35	YE/GN	3274	III	—	Remote Function Actuator Transmit Signal	26	0.35	YE/GN	3274	VII	—
27	0.35	GY	3273	III	—	Remote Function Actuator Low Reference	27	0.35	GY	3273	VII	—
28	0.5	BK	1850	III	—	Ground	28	0.5	BK	1850	VIII	—
29	0.5 0.5	YE WH/GN	3997 3997	III III	— —	MOST Serial Data (-) MOST Serial Data (-)	29	0.5	WH/GN	3997	VIII	—
30	0.35 0.5	GN/WH	488 963	III III	— —	Power Take Off Control Switch	30	0.35	GN/WH	488	VII	—

X225 Body Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
		GN/ GY				—						
31	0.35 0.5	BN/ GN WH/ BU	4311 964	III III	— —	Power Take Off Enable In Cab Switch Normally Closed Signal —	31	0.35	BN/ GN	4311	VII	—
32	0.5	GY/ VT	3998	III	—	MOST Serial Data (+)	32	0.5	GY/ VT	3998	VIII	—
33	0.5	BU	201	III	—	Left Front Speaker Control (+) 1	33	0.5	BU	201	VIII	—
34	0.5	BU/ YE	68	III	—	Low Coolant Level Indicator Control	34	0.5	BU/ YE	68	VIII	—
35	0.5	GN/ BK	116	III	—	Left Rear Speaker Signal (-)	35	0.5	GN/ BK	116	VIII	—
36	0.5 0.5	GN/ YE BU/ YE	2081 6105	III III	— —	Exhaust Brake Switch Control High Speed GMLAN Serial Data (+) 2	36	0.5 0.5	GN/ YE BU/ YE	2081 6105	VIII VIII	— —
37	0.35 0.5	VT/ YE WH	43 6106	III III	— —	Accessory Ignition Voltage High Speed GMLAN Serial Data (-) 2	37	0.35 0.5	VT/ YE WH	43 6106	VII VIII	— —
38	0.35	GN/ BN	2087	III	—	Combined Vehicle Inertial Sensor Supply Voltage	38	0.35	GN/ BN	2087	VII	—
39	0.5	YE/ WH	962	III	—	—	39	—	—	—	—	—
40	0.35 0.5	GY/ RD GN/ GY	598 6135	III III	— —	5V Reference Local Interconnect Network Serial Data Bus 4	40	0.35 0.5	GY/ RD GN/ GY	598 6135	VII VIII	— —
41	0.5 0.75	BU BU	201 201	V V	— —	Left Front Speaker Control (+) 1 Left Front Speaker Control (+) 1	41	0.75	BU	201	X	—
42	0.35 2.5	BU/ YE BK	6844 1050	V IV	— —	ABS/TCS Hill Descent Control Switch Signal Ground	42	0.35 2.5	BU/ YE BK	6844 1050	X VI	— —

X241 Instrument Panel Harness to Instrument Panel Extension Harness





Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846814
Service Connector: 13580444
Description: 12-Way F 2.8 Kaizen Series (L-GY)

Connector Part Information

Harness Type: Instrument Panel Extension
OEM Connector: 10846810
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M (L-GY)

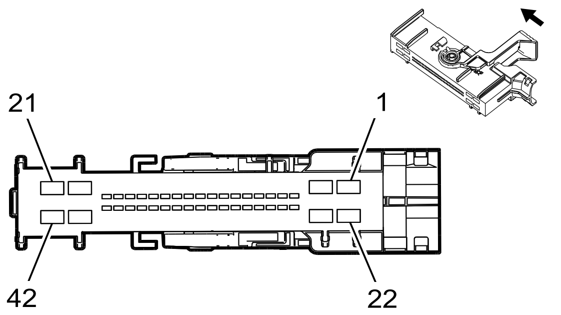
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575838	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	13575839	J-35616-35 (VT)	J-38125-11A	7116-4112-02	Yazaki 9	C	D
III	13575839	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
IV	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X241 Instrument Panel Harness to Instrument Panel Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	1.5	BK	5683	III	—	120 V AC Phase A	2	1.5	BK	5683	IV	—
3 - 5	—	—	—	—	—	Not Occupied	3 - 5	—	—	—	—	—
6	2.5	RD/GY	4140	II	—	Battery Positive Voltage	6	2.5	RD/GY	4140	IV	—
7	1.5	RD	5684	III	—	120 V AC Phase B	7	1.5	RD	5684	IV	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	Bare	514	I	—	Low Reference	10	0.35	Bare	514	IV	—
11	2.5	BK	1050	II	—	Ground	11	2.5	BK	1050	IV	—
12	0.35	BU/BN	6807	I	—	DC To AC Inverter Control	12	0.35	BU/BN	6807	IV	—

X275 Instrument Panel Harness to Body Harness



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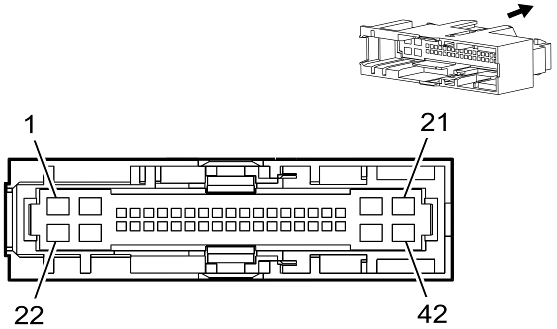


3240118

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33160245
Service Connector: 19332682
Description: 42-Way F 1.2, 2.8 Series (YE)

Connector Part Information

Harness Type: Body
OEM Connector: 33155177
Service Connector: 13597184
Description: 42-Way M 0.64, 2.8 Series (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13580025	J-35616-4A (PU)	J-38125-11A	7116-4111-02	Yazaki 9	E	A
II	13582232	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	19300649	J-35616-16 (LT GN)	J-38125-553	Not Available	Not Available	Not Available	Not Available
IV	19301752	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VI	13575823	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VII	13575824	J-35616-5 (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
VIII	19301762	J-35616-65B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IX	19301763	J-35616-65B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
X	19329828	J-35616-5 (PU)	J-38125-212	Not Available	Not Available	Not Available	Not Available
XI	19329836	J-35616-65B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

X275 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75 0.75	VT/BN VT/BN	1952 1952	V I	— —	Right Front Tweeter Speaker (-) Low Reference Right Front Tweeter Speaker (-) Low Reference	1	0.75	VT/BN	1952	X	—
2	1.5	VT/YE	143	IV	—	Accessory Ignition Voltage	2	1.5	VT/YE	143	VII	—
3	0.35	BU	2060	III	—	Auxiliary Detection Signal	3	0.5	BU	2060	IX	—
4	0.5	Bare	5842	III	—	Auxiliary Audio Screen 2	4	0.5	Bare	5842	IX	—
5	0.35	VT	5843	III	—	Auxiliary Audio Common Signal	5	0.5	VT	5843	IX	—
6	0.35	GY	5839	III	—	Left Auxiliary Audio Signal 2	6	0.5	GY	5839	IX	—
7	0.35	GN	5841	III	—	Right Auxiliary Audio Signal 2	7	0.5	GN	5841	IX	—
8	0.35	GY/YE	6972	III	—	Camera Signal 2 +	8	0.35	GY/YE	6972	VIII	—
9	0.35	WH/BU	6973	III	—	Camera Signal 2	9	0.35	WH/BU	6973	VIII	—
10	0.35	GN/WH	24	III	—	Backup Lamp Control	10	0.35	GN/WH	24	VIII	—
11	0.35	WH/VT	3999	III	—	MOST Control	11	0.35	WH/VT	3999	VIII	—
12	0.5	YE/BK	117	III	—	Right Front Speaker Signal (-) 1	12	0.5	YE/BK	117	IX	—
13	0.5	BN/WH	1429	III	—	Standing Lamp Relay Control	13	0.5	BN/WH	1429	IX	—
14	0.5	WH	46	III	—	Right Rear Speaker Control (+)	14	0.5	WH	46	IX	—
15	0.35	YE/OG	3025	II	—	Passenger IP Module Stage 1 High Control	15	0.35	YE/OG	3025	XI	—
16	0.35	OG/WH	3024	II	—	Passenger IP Module Stage 1 Low Control	16	0.35	OG/WH	3024	XI	—
17	0.35	GY/OG	3027	II	—	Passenger IP Module Stage 2 High Control	17	0.35	GY/OG	3027	XI	—

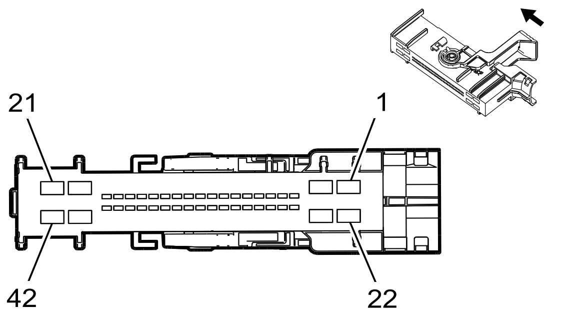
X275 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
18	0.35	OG/VT	3026	II	—	Passenger IP Module Stage 2 Low Control	18	0.35	OG/VT	3026	XI	—
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	0.75	YE/BK	117	V	—	Right Front Speaker Signal (-) 1	20	0.5 0.75	YE/BK YE/BK	117 117	VI VI	UQG UQ3/UQ5-IOB
21	1.5	VT/YE	243	IV	—	Accessory Ignition Voltage	21	1.5	VT/YE	243	VII	—
22	0.75	BN/GN	1852	V	—	Right Front Tweeter Speaker Control (+)	22	0.75	BN/GN	1852	X	—
23	0.35 0.5	WH/BU WH/BU	5986 5986	V	— —	Serial Data Communication Enable Serial Data Communication Enable	23	0.5	WH/BU	5986	X	—
24	0.35	GY/VT	755	III	—	RAP Relay Coil Control	24	0.35	GY/VT	755	VIII	—
25	0.5	GN	5060	III	—	Low Speed GMLAN Serial Data	25	0.5	GN	5060	IX	—
26 - 28	—	—	—	—	—	Not Occupied	26 - 28	—	—	—	—	—
29	0.35	Bare	6974	III	—	Camera Low Reference	29	0.35	Bare	6974	VIII	—
30	0.35	YE	6812	III	—	Out of Park Signal	30	0.35	YE	6812	VIII	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	GY/GN	1102	III	—	Low Speed GMLAN Serial Data #2	32	0.5	GY/GN	1102	IX	—
33	0.5	YE	200	III	—	Right Front Speaker Control (+) 1	33	0.5	YE	200	IX	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	BU/BK	115	III	—	Right Rear Speaker Signal (-)	35	0.5	BU/BK	115	IX	—
36	0.35	BU/OG	7328	III	—	Passenger IP Module Disable Switch Low Reference	36	0.35	BU/OG	7328	VIII	—
37	0.35	VT/OG	371	III	—	Passenger IP Module Disable Switch Signal	37	0.35	VT/OG	371	VIII	—

X275 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
38 - 40	—	—	—	—	—	Not Occupied	38 - 40	—	—	—	—	—
41	0.75	YE	200	V	—	Right Front Speaker Control (+) 1 Right Front Speaker Control (+) 1	41	0.5 0.75	YE YE	200 200	VI	— —
42	—	—	—	—	—	Not Occupied	42	—	—	—	—	—

X300 Instrument Panel Harness to Floor Console Harness



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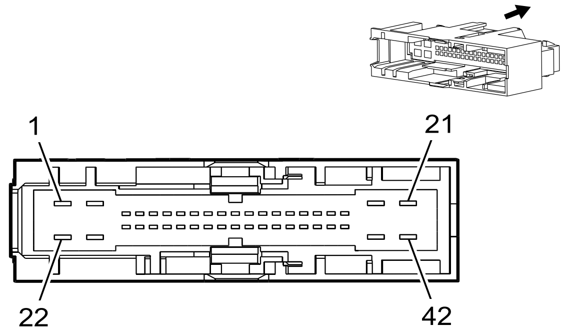


3240116

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33160247
Service Connector: 19301820
Description: 42-Way F 1.2, 2.8 Series (GY)

Connector Part Information

Harness Type: Floor Console
OEM Connector: 33155180
Service Connector: Service by Harness - See Part Catalog
Description: 42-Way M 0.64, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300649	J-35616-16 (LT GN)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19300649	J-35616-16 (LT GN)	J-38125-553	Not Available	Not Available	Not Available	Not Available
III	19301752	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
IV	19301761	J-35616-35 (VT)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
VI	Not Required	J-35616-65B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X300 Instrument Panel Harness to Floor Console Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	VT/YE	243	III	—	Accessory Ignition Voltage	1	1.5	VT/YE	243	V	—
2	1.5	VT/YE	143	III	—	Accessory Ignition Voltage	2	1.5	VT/YE	143	V	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.35	BU	2060	II	—	Auxiliary Detection Signal	4	0.35	BU	2060	VI	—
5	0.35	BK	2550	II	—	Ground Ground	5	0.35	BK	2550	VI	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

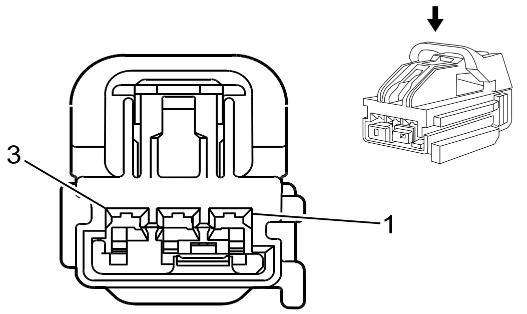
X300 Instrument Panel Harness to Floor Console Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.35	VT/YE	43	II	—	Accessory Ignition Voltage	7	0.35	VT/YE	43	VI	—
8 - 12	—	—	—	—	—	Not Occupied	8 - 12	—	—	—	—	—
13	0.5	Bare	5842	II	—	Auxiliary Audio Screen 2	13	0.5	Bare	5842	VI	—
14	0.35	VT	5843	II	—	Auxiliary Audio Common Signal	14	0.35	VT	5843	VI	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.35	GN/WH	3355	II	—	Left Rear Seat Audio Headphone Signal	16	0.35	GN/WH	3355	VI	—
17	0.5	Bare	3354	II	—	Rear Seat Audio Headphone Low Reference	17	0.5	Bare	3354	VI	—
18 - 22	—	—	—	—	—	Not Occupied	18 - 22	—	—	—	—	—
23	2.5	BK	1050	III	—	Ground	23	2.5	BK	1050	V	—
24	0.75	RD/VT	340	I	—	Battery Positive Voltage	24	0.75	RD/VT	340	VI	—
25 - 27	—	—	—	—	—	Not Occupied	25 - 27	—	—	—	—	—
28	0.5	WH/BN	6815	II	—	Inadvertent Power Control	28	0.5	WH/BN	6815	VI	—
29	0.35	GN	4512	II	—	Wireless Charging System Charge Indicator Control	29	0.35	GN	4512	VI	—
30 - 33	—	—	—	—	—	Not Occupied	30 - 33	—	—	—	—	—
34	0.35	GN	5841	II	—	Right Auxiliary Audio Signal 2	34	0.35	GN	5841	VI	—
35	0.35	GY	5839	II	—	Left Auxiliary Audio Signal 2	35	0.35	GY	5839	VI	—
36	—	—	—	—	—	Not Occupied	36	—	—	—	—	—
37	0.35	BN/GY	3357	II	—	Right Rear Seat Audio Headphone Signal	37	0.35	BN/GY	3357	VI	—

X300 Instrument Panel Harness to Floor Console Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
38	0.35	BU/ VT	3356	II	—	Rear Seat Audio Headphone Common Signal	38	0.35	BU/ VT	3356	VI	—
39 - 41	—	—	—	—	—	Not Occupied	39 - 41	—	—	—	—	—
42	0.75	RD/ VT	340	IV	—	Battery Positive Voltage	42	0.75	RD/ VT	340	V	—

X302 Floor Console Harness to Power Mat Jumper Harness



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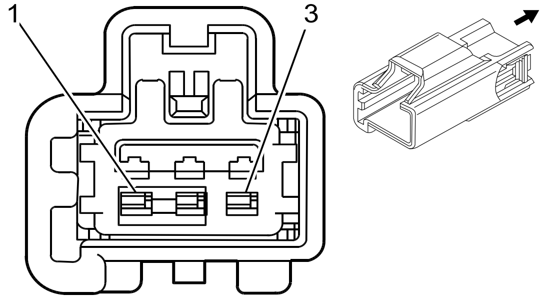


1787800

Connector Part Information

Harness Type: Floor Console
OEM Connector: 10847008
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.5 Kaizen Series (L-GY)

Connector Part Information

Harness Type: Power Mat Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way M

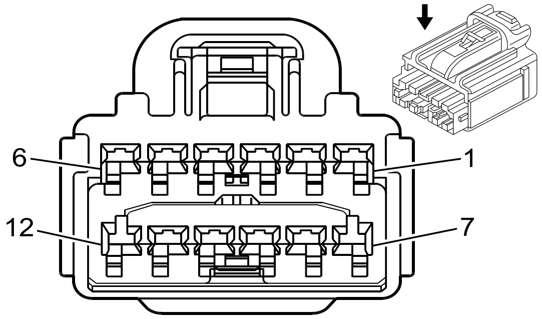
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X302 Floor Console Harness to Power Mat Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	VT/ YE	43	I	—	Accessory Ignition Voltage	1	0.35	VT/ YE	43	II	—
2	0.75	BK	1050	I	—	Ground	2	0.75	BK	1050	II	—
3	0.35	GN	4512	I	—	Wireless Charging System Charge Indicator Control	3	0.35	GN	4512	II	—

X305 Instrument Panel Harness to Headliner Harness



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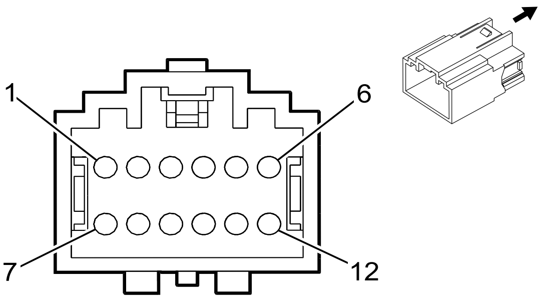


3240100

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13507762
Service Connector: 89046712
Description: 12-Way F YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Headliner
OEM Connector: 13507705
Service Connector: 88988266
Description: 12-Way M 1.5 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19301756	J-35616-14 (GN)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19301756	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	13575818	J-35616-3 (GY)	J-38125-553	Not Available	Not Available	Not Available	Not Available

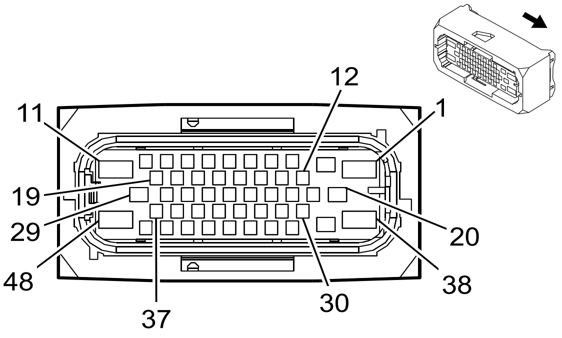
X305 Instrument Panel Harness to Headliner Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35 0.5	BK BK	2550 1050	I I	— —	Ground Ground	1	0.5 0.75	BK/WH BK	2550 1050	III III	— —
2	0.75	WH/VT	1430	II	—	Exterior Courtesy Lamp Control	2	0.75	WH/VT	1430	III	—
3	0.35 0.35	GY/GN BK/BN	328 654	I I	E29 UE1	Interior Lamp Defeat Switch Signal Cellular Telephone Microphone Low Reference	3	0.35 0.35	GY/GN BK/BN	328 654	III III	E29 UE1+IO6
4	0.35	BU	655	I	—	Cellular Telephone Microphone Signal	4	0.35	BU	655	III	—
5	0.5	RD/GN	1540	I	—	Battery Positive Voltage	5	0.5	RD/GN	1540	III	—

X305 Instrument Panel Harness to Headliner Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.35	BU/ GY	3935	I	—	High Speed GMLAN Serial Data (+) 8	6	0.35	BU/ GY	3935	III	—
7	0.35	WH/ GY	3936	I	—	High Speed GMLAN Serial Data (-) 8	7	0.35	WH/ GY	3936	III	—
8	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	8	0.35	WH/ BU	5986	III	—
9	0.5	VT/ GN	7558	I	—	LED Ambient Lighting Control 2	9	0.35	VT/ GN	7558	III	—
10	0.5 0.35	YE GN/ YE	6817 7066	I I	E29 U42	LED Backlight Dimming Control Entertainment Remote Enable Signal	10	0.5 0.35	YE GN/ YE	6817 7066	III III	E29 U42
11	0.5	BU/ GY	3935	I	—	High Speed GMLAN Serial Data (+) 8	11	0.35	BU/ GY	3935	III	—
12	0.5	WH/ GY	3936	I	—	High Speed GMLAN Serial Data (-) 8	12	0.35	WH/ GY	3936	III	—

X310 Driver Seat Cushion Harness to Body Harness (A45)



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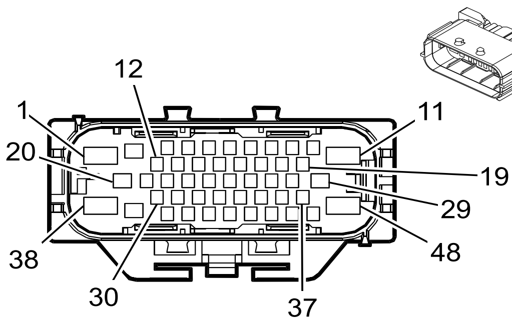


3240126

Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 15509588

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Body

OEM Connector: 15513436

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13578881	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VII	19329756	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VIII	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IX	19353142	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
X	19368136	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X310 Driver Seat Cushion Harness to Body Harness (A45)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	RD/YE	5040	III	—	Battery Positive Voltage	2	2.5	RD/YE	5040	VI	—

X310 Driver Seat Cushion Harness to Body Harness (A45) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	1.5	YE	5129	I	—	Adjustable Pedal Actuator Rearward Control	3	1.5	YE	5129	X	—
4	1.5	GN/VT	5130	I	—	Adjustable Pedal Actuator Forward Control	4	1.5	GN/VT	5130	X	—
5	0.35	OG/GN	5055	I	—	Driver Seat Position Switch Signal	5	0.35	OG/GN	5055	VIII	—
6	0.35	OG/BN	238	I	—	Driver Seat Belt Switch Signal	6	0.35	OG/BN	238	VIII	—
7	0.35	BK/OG	1363	I	—	Driver Seat Belt Switch Low Reference	7	0.35	BK/OG	1363	VIII	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.35	GN/GY	5286	I	—	Adjustable Pedal Switch Forward Signal	9	0.35	GN/GY	5286	VIII	—
10	0.35	WH/GY	5285	I	—	Adjustable Pedal Switch Rearward Signal	10	0.35	WH/GY	5285	VIII	—
11	4	BK	1150	II	—	Ground	11	4	BK	1150	VII	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	0.5	WH/RD	6207	I	—	Memory Sensor High Reference	13	0.35	WH/RD	6207	VIII	—
14	0.35	BU	5952	I	—	Adjustable Pedal Position Sensor Brake Signal	14	0.35	BU	5952	VIII	—
15	0.5	BK/GY	6206	I	—	Memory Sensor Low Reference	15	0.35	BK/GY	6206	VIII	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.5	GN/WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	17	0.5	GN/WH	7530	IV	—
18	—	—	—	—	—	Not Occupied	18	—	—	—	—	—
19	0.35	GN/VT	5906	I	—	Driver Seat Vent Motor Control 1	19	0.35	GN/VT	5906	VIII	—
20 - 21	—	—	—	—	—	Not Occupied	20 - 21	—	—	—	—	—

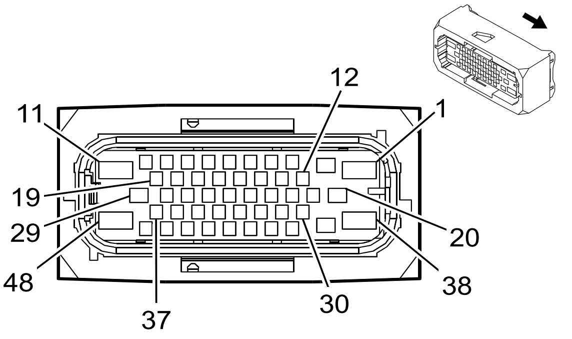
X310 Driver Seat Cushion Harness to Body Harness (A45) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
22	0.75	BN/ BK	2078	I	—	Driver Heated Seat Element Low Reference	22	0.75	BN/ BK	2078	V	—
23	0.75	RD/ BN	1140	I	—	Battery Positive Voltage	23	0.5	RD/ BN	1140	IV	—
24	0.5	GN/ OG	3069	I	—	Driver Side Impact Module Low Control	24	0.35	GN/ OG	3069	IX	—
25	0.5	YE/ OG	3482	I	—	Driver Seat Belt Anchor Pretensioner Low Control	25	0.35	YE/ OG	3482	IX	—
26	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	26	0.5	GN	5060	IV	—
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	0.5	BN/ YE	2080	I	—	Driver Heated Seat NTC Low Reference	28	0.5	BK/ YE	2080	IV	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.5	BU	2425	I	—	Driver Heated Back NTC Signal	30	0.5	BU	2425	IV	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	YE/ GY	2079	I	—	Driver Heated Seat NTC Signal	32	0.5	YE/ GY	2079	IV	—
33	0.5	OG/ BU	3068	I	—	Driver Side Impact Module High Control	33	0.35	OG/ BU	3068	IX	—
34	0.5	OG/ YE	3481	I	—	Driver Seat Belt Anchor Pretensioner High Control	34	0.35	OG/ YE	3481	IX	—
35	0.35	GN/ BU	614	I	—	Memory Seat Switch Set Signal	35	0.35	BU/ GN	614	VIII	—
36	0.75	BN	2432	I	—	Driver Heated Back Element Control	36	0.75	BN	2432	V	—
37	0.75	BN/ VT	2077	I	—	Driver Heated Seat Element Control	37	0.75	BN/ VT	2077	V	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—
40	0.35	BK/ BU	5978	I	—	Memory Switch Low Reference	40	0.35	BK/ BU	5978	VIII	—

X310 Driver Seat Cushion Harness to Body Harness (A45) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
41	0.35	WH	615	I	—	Memory Seat Switch Signal 1	41	0.35	WH	615	VIII	—
42	—	—	—	—	—	Not Occupied	42	—	—	—	—	—
43	0.5	VT	4106	I	—	Center Side Impact Module Low Control	43	—	—	—	—	—
44	0.5	BN/WH	4107	I	—	Center Side Impact Module High Control	44	—	—	—	—	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.35	GY	157	I	—	Interior Lamp Control	46	—	—	—	—	—
47	0.75	RD/GN	5140	I	—	Battery Positive Voltage	47	0.75	RD/GN	5140	V	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—

X310 Driver Seat Cushion Harness to Body Harness (-A45)



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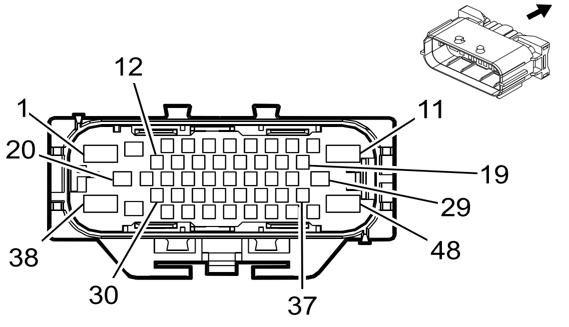


3240126

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 15509590
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Body
OEM Connector: 15513436
Service Connector: 19301796
Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required
V	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VII	13578881	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VIII	19329756	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IX	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
X	19353142	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X310 Driver Seat Cushion Harness to Body Harness (-A45)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	RD/YE	5040	III	—	Battery Positive Voltage	2	2.5	RD/YE	5040	VII	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

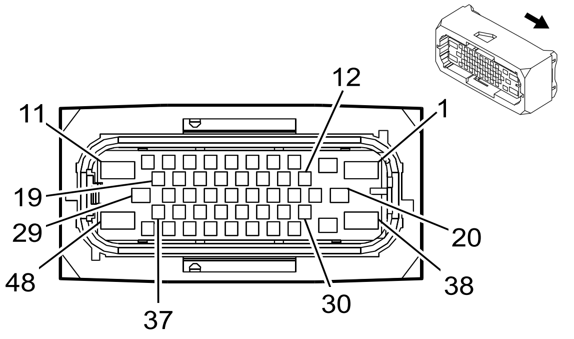
X310 Driver Seat Cushion Harness to Body Harness (-A45) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.35	OG/GN	5055	I	—	Driver Seat Position Switch Signal	5	0.35	OG/GN	5055	IX	—
6	0.35	OG/BN	238	I	—	Driver Seat Belt Switch Signal	6	0.35	OG/BN	238	IX	—
7	0.35	BK/OG	1363	I	—	Driver Seat Belt Switch Low Reference	7	0.35	BK/OG	1363	IX	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—
11	4 2.5	BK BK	1150 1150	IV II	AG1/A45/KA1/KB6 AG1-A45-KA1-KB1-KB6-UFL-UHX	Ground Ground	11	4	BK	1150	VIII	—
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—
17	0.5	GN/WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	17	0.5	GN/WH	7530	V	—
18	—	—	—	—	—	Not Occupied	18	—	—	—	—	—
19	0.35	GN/VT	5906	I	—	Driver Seat Vent Motor Control 1	19	0.35	GN/VT	5906	IX	—
20 - 21	—	—	—	—	—	Not Occupied	20 - 21	—	—	—	—	—
22	—	—	—	—	—	Driver Heated Seat Element Low Reference	22	0.75	BN/BK	2078	VI	—
23	0.75	RD/BN	1140	I	—	Battery Positive Voltage	23	0.5	RD/BN	1140	V	—
24	0.5	GN/OG	3069	I	—	Driver Side Impact Module Low Control	24	0.35	GN/OG	3069	X	—
25	0.5	YE/OG	3482	I	—	Driver Seat Belt Anchor Pretensioner Low Control	25	0.35	YE/OG	3482	X	—
26	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	26	0.5	GN	5060	V	—
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	—	—	—	—	—	Driver Heated Seat NTC Low Reference	28	0.5	BK/YE	2080	V	—

X310 Driver Seat Cushion Harness to Body Harness (-A45) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	—	—	—	—	—	Driver Heated Back NTC Signal	30	0.5	BU	2425	V	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	—	—	—	—	—	Driver Heated Seat NTC Signal	32	0.5	YE/GY	2079	V	—
33	0.5	OG/BU	3068	I	—	Driver Side Impact Module High Control	33	0.35	OG/BU	3068	X	—
34	0.5	OG/YE	3481	I	—	Driver Seat Belt Anchor Pretensioner High Control	34	0.35	OG/YE	3481	X	—
35	0.35	GN/BU	614	I	—	Memory Seat Switch Set Signal	35	0.35	BU/GN	614	IX	—
36	—	—	—	—	—	Driver Heated Back Element Control	36	0.75	BN	2432	VI	—
37	—	—	—	—	—	Driver Heated Seat Element Control	37	0.75	BN/VT	2077	VI	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—
40	0.35	BK/BU	5978	I	—	Memory Switch Low Reference	40	0.35	BK/BU	5978	IX	—
41	0.35	WH	615	I	—	Memory Seat Switch Signal 1	41	0.35	WH	615	IX	—
42 - 46	—	—	—	—	—	Not Occupied	42 - 46	—	—	—	—	—
47	0.75	RD/GN	5140	I	—	Battery Positive Voltage	47	0.75	RD/GN	5140	VI	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—

X310 Driver Seat Cushion Harness to Body Harness (-AG1)



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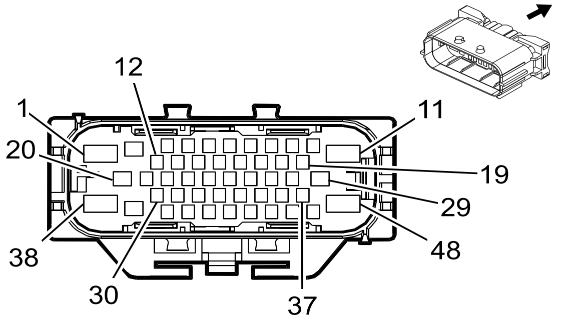


3240126

Connector Part Information

Harness Type: Driver Seat Cushion

OEM Connector: 15509611

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Body

OEM Connector: 15504582

Service Connector: 19329476

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	13578881	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	19329756	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available
V	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	19353142	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

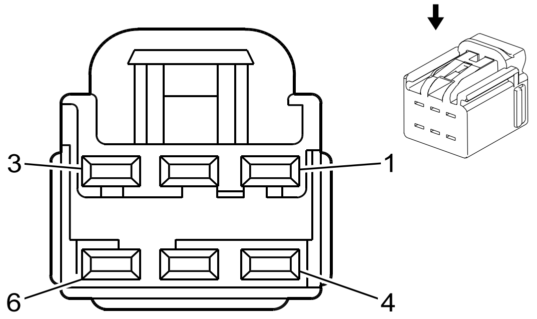
X310 Driver Seat Cushion Harness to Body Harness (-AG1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	—	—	—	—	—	Battery Positive Voltage	2	2.5	RD/YE	5040	III	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—
5	0.35	OG/GN	5055	I	—	Driver Seat Position Switch Signal	5	0.35	OG/GN	5055	V	—
6	0.35	OG/BN	238	I	—	Driver Seat Belt Switch Signal	6	0.35	OG/BN	238	V	—

X310 Driver Seat Cushion Harness to Body Harness (-AG1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.35	BK/OG	1363	I	—	Driver Seat Belt Switch Low Reference	7	0.35	BK/OG	1363	V	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—
11	—	—	—	—	—	Ground	11	4	BK	1150	IV	—
12 - 22	—	—	—	—	—	Not Occupied	12 - 22	—	—	—	—	—
23	—	—	—	—	—	Battery Positive Voltage	23	0.5	RD/BN	1140	II	—
24	0.5	GN/OG	3069	I	—	Driver Side Impact Module Low Control	24	0.35	GN/OG	3069	VI	—
25	0.5	YE/OG	3482	I	—	Driver Seat Belt Anchor Pretensioner Low Control	25	0.35	YE/OG	3482	VI	—
26	—	—	—	—	—	Low Speed GMLAN Serial Data	26	0.5	GN	5060	II	—
27 - 32	—	—	—	—	—	Not Occupied	27 - 32	—	—	—	—	—
33	0.5	OG/BU	3068	I	—	Driver Side Impact Module High Control	33	0.35	OG/BU	3068	VI	—
34	0.5	OG/YE	3481	I	—	Driver Seat Belt Anchor Pretensioner High Control	34	0.35	OG/YE	3481	VI	—
35 - 48	—	—	—	—	—	Not Occupied	35 - 48	—	—	—	—	—

X311 Driver Seat Back Harness to Driver Seat Cushion Harness



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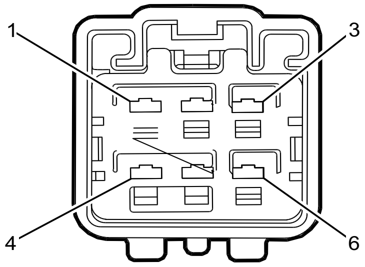


1849802

Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 7282-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M YESC Kaizen Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

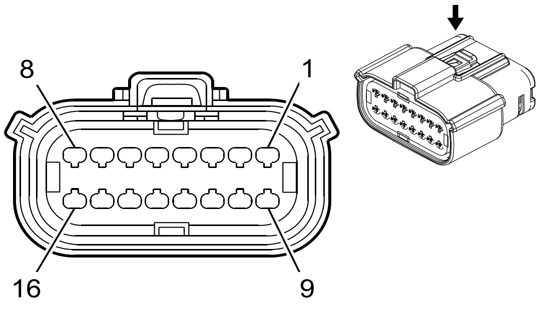
X311 Driver Seat Back Harness to Driver Seat Cushion Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	YE/BU	767	I	—	Driver Power Seat Lumbar Motor Down Control	1	1.5	YE/BU	767	II	—
2	1.5	YE/BN	768	I	—	Driver Power Seat Lumbar Motor Up Control	2	1.5	YE/BN	768	II	—
3	1.5	BU	611	I	—	Driver Power Seat Lumbar Motor Forward Control	3	1.5	BU	611	II	—
4	1.5	VT	610	I	—	Driver Power Seat Lumbar Motor Rearward Control	4	1.5	VT	610	II	—
5	1.5	GN/YE	276	I	—	Driver Power Seat Recline Motor Forward Control	5	1.5	GN/YE	276	II	—

X311 Driver Seat Back Harness to Driver Seat Cushion Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	1.5	BU/ YE	277	I	—	Driver Power Seat Recline Motor Rearward Control	6	1.5	BU/ YE	277	II	—

X312 Driver Seat Back Harness to Driver Seat Cushion Harness (AG1)



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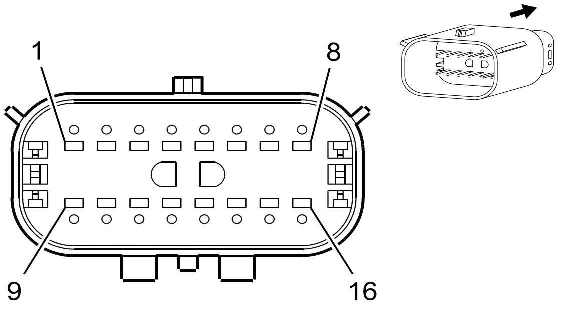

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Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 33482-1777
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 150 MX Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

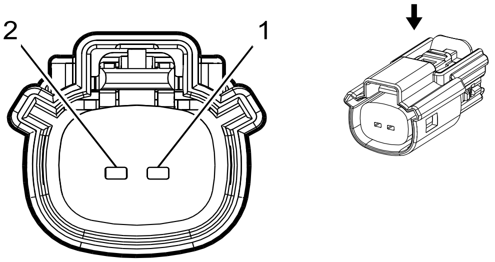
X312 Driver Seat Back Harness to Driver Seat Cushion Harness (AG1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG/BU	3068	I	—	Driver Side Impact Module High Control	1	0.5	OG/BU	3068	II	—
2	0.5	GN/OG	3069	I	—	Driver Side Impact Module Low Control	2	0.5	GN/OG	3069	II	—
3	0.5	VT	4106	I	—	Center Side Impact Module Low Control	3	0.5	VT	4106	II	—
4	0.5	BN/WH	4107	I	—	Center Side Impact Module High Control	4	0.5	BN/WH	4107	II	—
5	0.75	BK	1150	I	—	Ground	5	0.75	BK	1150	II	—
6	0.75	BN	2432	I	—	Driver Heated Back Element Control	6	0.75	BN	2432	II	—
7	0.35	GN/VT	5906	I	—	Driver Seat Vent Motor Control 1	7	0.35	GN/VT	5906	II	—

X312 Driver Seat Back Harness to Driver Seat Cushion Harness (AG1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	BN/ YE	2080	I	—	Driver Heated Seat NTC Low Reference	8	0.5	BN/ YE	2080	II	—
9	0.75	BN/ BK	2078	I	—	Driver Heated Seat Element Low Reference	9	0.75	BN/ BK	2078	II	—
10	0.5	BU	2425	I	—	Driver Heated Back NTC Signal	10	0.5	BU	2425	II	—
11	0.75	RD/ GN	5140	I	—	Battery Positive Voltage	11	0.75	RD/ GN	5140	II	—
12	0.5	WH/ BK	570	I	—	Driver Memory Seat Recline Motor Position Sensor Signal	12	0.5	WH/ BK	570	II	—
13	0.35	WH/ RD	3298	I	—	Memory Sensor High Reference 2	13	0.35	WH/ RD	3298	II	—
14 - 16	—	—	—	—	—	Not Occupied	14 - 16	—	—	—	—	—

X312 Driver Seat Back Harness to Driver Seat Cushion Harness (-AG1)



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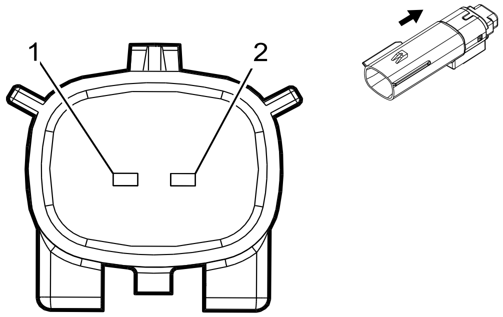


3338703

Connector Part Information

Harness Type: Driver Seat Back
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Driver Seat Cushion
OEM Connector: 33481-0210
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.5 MX Series, Sealed (YE)

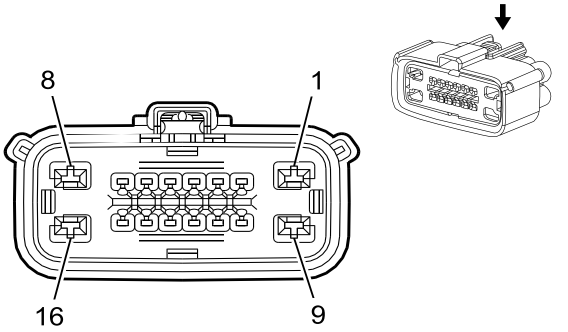
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X312 Driver Seat Back Harness to Driver Seat Cushion Harness (-AG1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG/BU	3068	I	—	Driver Side Impact Module High Control	1	0.5	OG/BU	3068	II	—
2	0.5	GN/OG	3069	I	—	Driver Side Impact Module Low Control	2	0.5	GN/OG	3069	II	—

X314 Center Seat Harness to Body Harness (AE7/AZ3)



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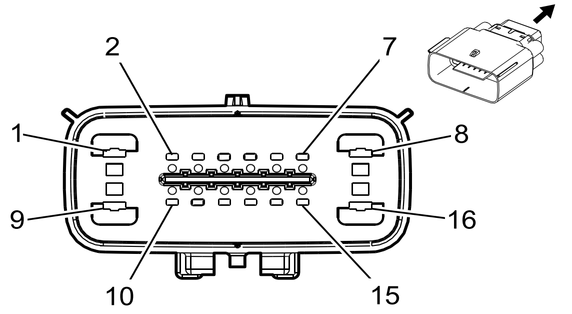


2373686

Connector Part Information

Harness Type: Center Seat
OEM Connector: 34985-1606
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5, 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33129084
Service Connector: 19331031
Description: 16-Way M 1.5, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
IV	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
V	19329833	J-35616-5 (PU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

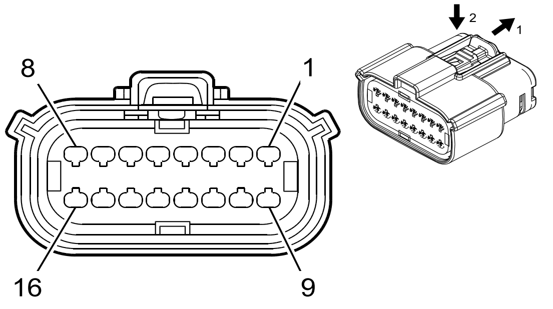
X314 Center Seat Harness to Body Harness (AE7/AZ3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	VT/YE	143	II	—	Accessory Ignition Voltage	1	1.5	VT/YE	143	V	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.35	BK	5842	I	—	Auxiliary Audio Screen 2	3	0.5	BK	5842	IV	—
4	0.35	GY	5839	I	—	Left Auxiliary Audio Signal 2	4	0.5	GY	5839	IV	—
5	0.35	BU	2060	I	—	Auxiliary Detection Signal	5	0.5	BU	2060	IV	—
6	0.35	BK	2550	I	—	Ground	6	0.75	BK	2550	III	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—
8	1.5	BK	1250	II	—	Ground	8	1.5	BK	1250	V	—

X314 Center Seat Harness to Body Harness (AE7/AZ3) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	1.5	VT/ YE	243	II	—	Accessory Ignition Voltage	9	1.5	VT/ YE	243	V	—
10	—	—	—	—	—	Not Occupied	10	—	—	—	—	—
11	0.35	GN	5841	I	—	Right Auxiliary Audio Signal 2	11	0.5	GN	5841	IV	—
12	0.35	VT	5843	I	—	Auxiliary Audio Common Signal	12	0.5	VT	5843	IV	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.75	RD/ VT	340	I	—	Battery Positive Voltage	14	0.75	RD/ VT	340	III	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	1.5	BK	1250	II	—	Ground	16	1.5	BK	1250	V	—

X315 Brake Clutch Harness to Body Harness (E29)



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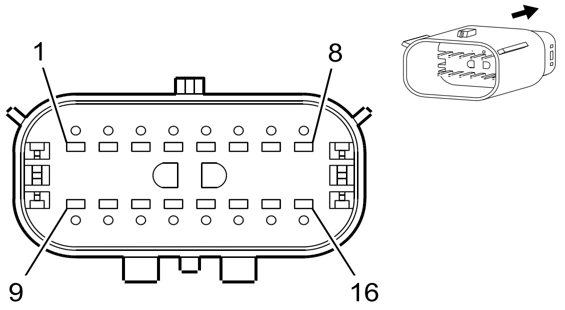


2548390

Connector Part Information

Harness Type: Brake Clutch
OEM Connector: 33251338
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13551665
Service Connector: 19300393
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13580014	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

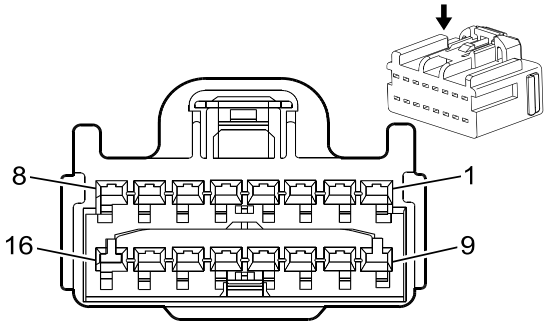
X315 Brake Clutch Harness to Body Harness (E29)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	1	0.35	BK/ BU	1271	II	—
2	0.35	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	2	0.35	YE/ WH	1161	II	—
3	0.35	WH/ RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	3	0.35	WH/ RD	1164	II	—
4	0.35	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	4	0.35	BK/ VT	1272	II	—
5	0.35	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
6	0.35	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	6	0.35	BN/ RD	1274	II	—

X315 Brake Clutch Harness to Body Harness (E29) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7 - 9	—	—	—	—	—	Not Occupied	7 - 9	—	—	—	—	—
10	0.5	WH/GN	526	I	—	Stop Lamp Switch Signal	10	0.35	WH/GN	526	III	—
11	0.5	BK/GN	552	I	—	Sensor Low Reference	11	0.35	BK/GN	552	III	—
12	0.5	GY/RD	598	I	—	5V Reference	12	0.35	GY/RD	598	III	—
13	0.5	GY/RD	6109	I	—	Clutch Apply Sensor 5V Reference	13	0.5	GY/RD	6109	III	—
14	0.5	BK/GY	6110	I	—	Clutch Apply Sensor Low Reference	14	0.5	BK/GY	6110	III	—
15	0.5	YE	6111	I	—	Clutch Apply Sensor Signal	15	0.5	YE	6111	III	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—

X315 Body Harness to Brake Clutch Harness (-E29)



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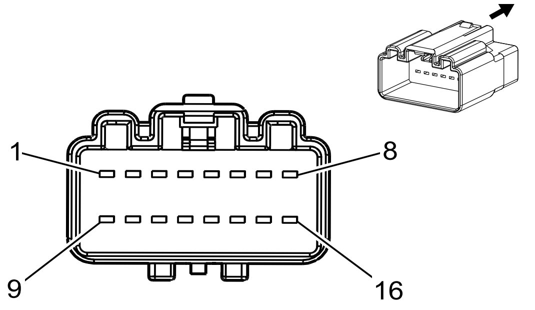


1483278

Connector Part Information

- Harness Type: Body
- OEM Connector: 10847013
- Service Connector: 89047090
- Description: 16-Way F 1.5 Kaizen Series (GN)

Connector Part Information

- Harness Type: Brake Clutch
- OEM Connector: 13507433
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M 1.5 Kaizen Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

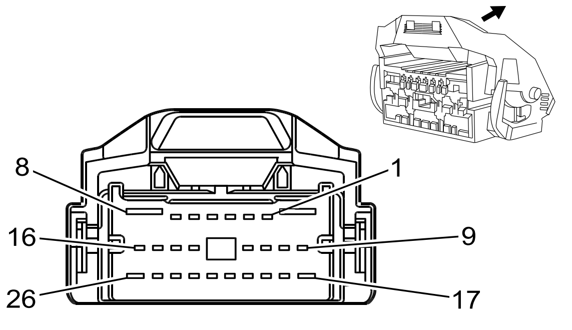
X315 Body Harness to Brake Clutch Harness (-E29)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BK/BU	1271	I	—	Accelerator Pedal Position Low Reference 1	1	0.35	BK/BU	1271	III	—
2	0.35	YE/WH	1161	I	—	Accelerator Pedal Position Signal 1	2	0.35	YE/WH	1161	III	—
3	0.35	WH/RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	3	0.35	WH/RD	1164	III	—
4	0.35	BK/VT	1272	I	—	Accelerator Pedal Position Low Reference 2	4	0.35	BK/VT	1272	III	—
5	0.35	GN/WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/WH	1162	III	—
6	0.35	BN/RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	6	0.35	BN/RD	1274	III	—

X315 Body Harness to Brake Clutch Harness (-E29) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.35	WH	5359	II	—	Brake Apply Sensor Control	7	0.5	WH	5359	III	—
8	0.35	BK/ BN	5360	II	—	Brake Apply Sensor Low Reference	8	0.5	BK/ BN	5360	III	—
9	0.35	BU/ YE	5361	II	—	Brake Apply Sensor Signal	9	0.5	BU/ YE	5361	III	—
10	0.5	YE/ BK	7478	II	—	Rotary Position Sensor Low Reference	10	0.5	YE/ BK	7478	III	—
11	0.5	WH/ RD	7477	II	—	Rotary Position Sensor 5V Reference	11	0.5	WH/ RD	7477	III	—
12	0.5	WH/ GN	7479	II	—	Rotary Position Sensor Signal	12	0.5	WH/ GN	7479	III	—
13 - 16	—	—	—	—	—	Not Occupied	13 - 16	—	—	—	—	—

X316 Headliner Harness to POA Overhead Console Harness



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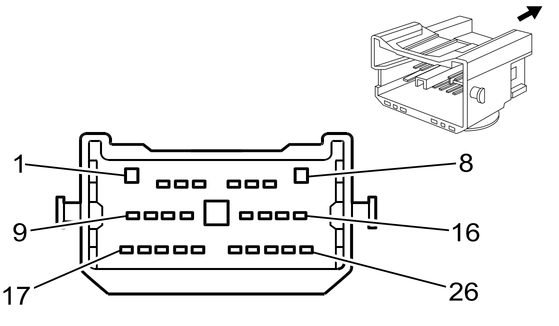


823289

Connector Part Information

Harness Type: Headliner
OEM Connector: 15518265
Service Connector: 13587877
Description: 26-Way F 1.5, 2.8, 6.3 Series (BK)

Connector Part Information

Harness Type: POA Overhead Console
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 26-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578891	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	13582322	J-35616-4A (PU)	J-38125-11A	7116-4110-02	Yazaki 9	E	C
III	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

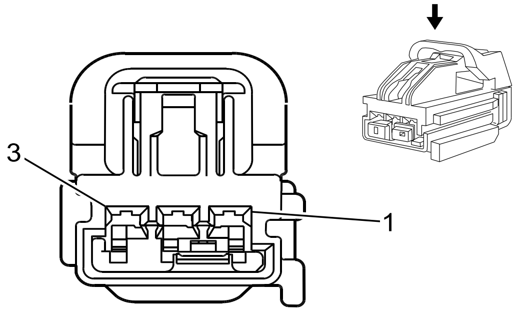
X316 Headliner Harness to POA Overhead Console Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.35	VT/YE	43	I	—	Accessory Ignition Voltage	3	0.35	VT/YE	43	III	—
4	0.5	BK	1050	I	—	Ground	4	0.5	BK	1050	III	—
5	0.35	GY/GN	328	I	—	Interior Lamp Defeat Switch Signal	5	0.35	GY/GN	328	III	—
6	0.35	GY/BU	156	I	—	Courtesy Lamp Switch Signal	6	0.35	GY/BU	156	III	—
7	0.5	WH/BN	6815	I	—	Inadvertent Power Control	7	0.5	WH/BN	6815	III	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.35	VT/GN	7558	I	—	LED Ambient Lighting Control 2	9	0.35	VT/GN	7558	III	—

X316 Headliner Harness to POA Overhead Console Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	YE	6817	I	—	LED Backlight Dimming Control	10	0.5	YE	6817	III	—
11	0.35	VT/ BK	1139	I	AL0/C99	Run/Crank Ignition 1 Voltage	11	0.35	VT/ BK	1139	III	AL0/C99
12	0.35	VT/ WH	5234	I	—	Passenger Seat Belt Indicator Control	12	0.35	VT/ WH	5234	III	—
13	0.35	BU	2307	I	—	Passenger Air Bag On Indicator Control	13	0.35	BU	2307	III	—
14	0.35	GN/ RD	2308	I	—	Passenger Air Bag Off Indicator Control	14	0.35	GN/ RD	2308	III	—
15 - 16	—	—	—	—	—	Not Occupied	15 - 16	—	—	—	—	—
17	0.5	RD/ YE	240	II	—	Battery Positive Voltage	17	0.5	RD/ YE	240	III	—
18	—	—	—	—	—	Not Occupied	18	—	—	—	—	—
19	0.35	YE/ VT	6191	I	—	Power Sliding Window Switch Open Signal	19	0.35	YE/ VT	6191	III	—
20	0.35	WH	6192	I	—	Power Sliding Window Switch Close Signal	20	0.35	WH	6192	III	—
21	0.5	GY	157	I	—	Interior Lamp Control	21	0.5	GY	157	III	—
22	—	—	—	—	—	Not Occupied	22	—	—	—	—	—
23	0.35	VT/ YE	43	I	—	Accessory Ignition Voltage	23	0.35	VT/ YE	43	III	—
24 - 26	—	—	—	—	—	Not Occupied	24 - 26	—	—	—	—	—

X317 Headliner Harness to POA Lamp Harness



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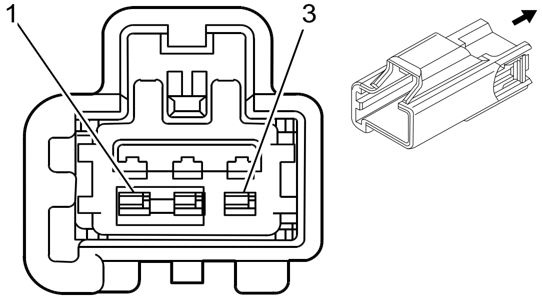


1787800

Connector Part Information

Harness Type: Headliner
OEM Connector: 10847008
Service Connector: 19149536
Description: 3-Way F 1.5 Kaizen Series (L-GY)

Connector Part Information

Harness Type: POA Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way M

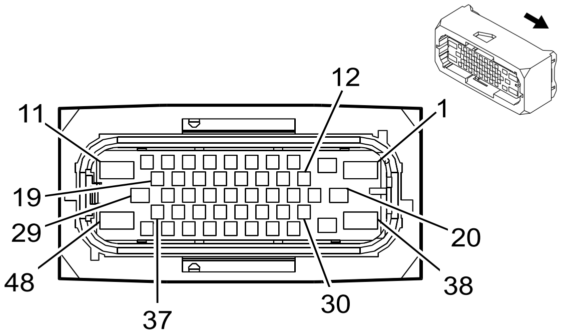
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X317 Headliner Harness to POA Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	WH/VT	1430	I	—	Exterior Courtesy Lamp Control	1	0.75	WH/VT	1430	II	—
2	0.5	VT/GY	1054	I	—	Stop Lamp Control	2	0.5	VT/GY	1054	II	—
3	0.5	BK	1050	I	—	Ground	3	0.5	BK	1050	II	—

X320 Passenger Seat Cushion Harness to Body Harness (A45/AG1/KA1/KB6)



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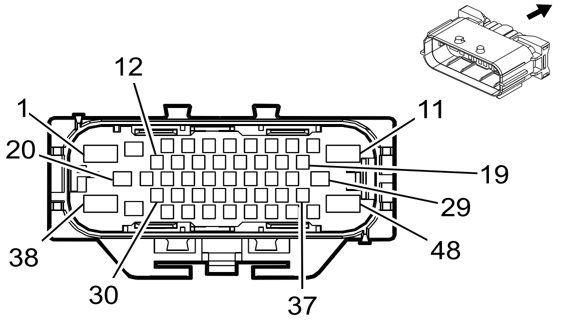


3240126

Connector Part Information

Harness Type: Passenger Seat Cushion

OEM Connector: 15509588

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Body

OEM Connector: 15513436

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13578881	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VII	19329756	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VIII	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IX	19353142	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X320 Passenger Seat Cushion Harness to Body Harness (A45/AG1/KA1/KB6)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	RD/BN	1440	III	—	Battery Positive Voltage	2	2.5	RD/BN	1440	VI	—
3 - 5	—	—	—	—	—	Not Occupied	3 - 5	—	—	—	—	—

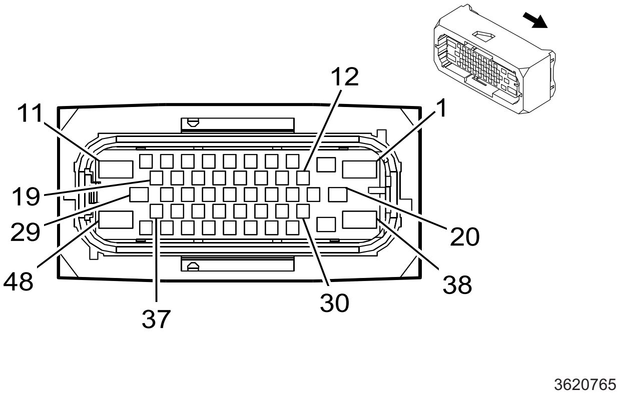
X320 Passenger Seat Cushion Harness to Body Harness (A45/AG1/KA1/KB6) (cont'd)

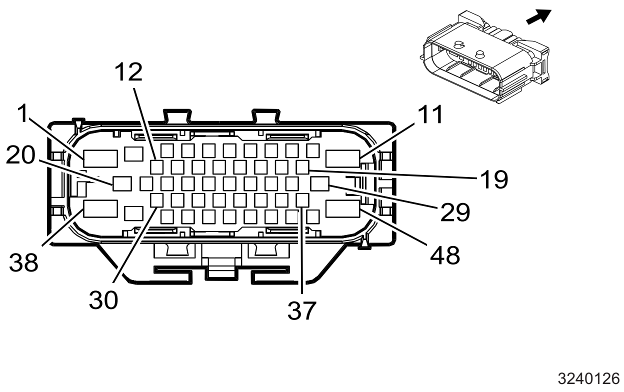
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.35	OG/ VT	1362	I	—	Passenger Seat Belt Switch Signal	6	0.35	OG/ VT	1362	VIII	—
7	0.35	BK/ OG	1361	I	—	Passenger Seat Belt Switch Low Reference	7	0.35	BK/ OG	1361	VIII	—
8	0.75	BN/ VT	2077	I	—	Driver Heated Seat Element Control	8	0.75	BN/ VT	2077	V	—
9	0.75	BN	2432	I	—	Driver Heated Back Element Control	9	0.75	BN	2432	V	—
10	—	—	—	—	—	Not Occupied	10	—	—	—	—	—
11	4	BK	1250	II	—	Ground	11	4	BK	1250	VII	—
12 - 13	—	—	—	—	—	Not Occupied	12 - 13	—	—	—	—	—
14	0.35	BU/ RD	5612	I	—	Passenger Seat Belt Tension Sensor 5V Reference	14	0.35	BU/ RD	5612	VIII	—
15	0.35	VT/ OG	5611	I	—	Passenger Seat Belt Tension Sensor Signal	15	0.35	VT/ OG	5611	VIII	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.75	RD/ GN	6140	I	—	Battery Positive Voltage	17	0.75	RD/ GN	6140	V	—
18	—	—	—	—	—	Not Occupied	18	—	—	—	—	—
19	0.35	GN/ VT	5906	I	—	Driver Seat Vent Motor Control 1	19	0.35	GN/ VT	5906	VIII	—
20 - 21	—	—	—	—	—	Not Occupied	20 - 21	—	—	—	—	—
22	0.75	BN/ BK	2078	I	—	Driver Heated Seat Element Low Reference	22	0.75	BN/ BK	2078	V	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	BN/ OG	3067	I	—	Passenger Side Impact Module Low Control	24	0.35	BN/ OG	3067	IX	—
25	0.5	GY/ OG	3480	I	—	Passenger Seat Belt Anchor Pretensioner Low Control	25	0.35	GY/ OG	3480	IX	—

X320 Passenger Seat Cushion Harness to Body Harness (A45/AG1/KA1/KB6) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
26	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	26	0.35	GN	5060	VIII	—
27	0.35	GN/ BU	6133	I	—	Local Interconnect Network Serial Data Bus 2	27	0.5	GN/ BU	6133	IV	—
28	0.5	BK/ YE	2080	I	—	Driver Heated Seat NTC Low Reference	28	0.5	BK/ YE	2080	IV	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.5	BU	2425	I	—	Driver Heated Back NTC Signal	30	0.5	BU	2425	IV	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	YE/ GY	2079	I	—	Driver Heated Seat NTC Signal	32	0.5	YE/ GY	2079	IV	—
33	0.5	OG/ GY	3066	I	—	Passenger Side Impact Module High Control	33	0.35	OG/ GY	3066	IX	—
34	0.5	OG/ BN	3479	I	—	Passenger Seat Belt Anchor Pretensioner High Control	34	0.35	OG/ BN	3479	IX	—
35	0.35	RD/ GN	4440	I	—	Battery Positive Voltage	35	0.35	RD/ GN	4440	VIII	—
36	0.35	BK/ WH	2751	I	—	Signal Ground	36	0.5	BK/ WH	2751	IV	—
37 - 46	—	—	—	—	—	Not Occupied	37 - 46	—	—	—	—	—
47	0.75	RD/ GN	5140	I	—	Battery Positive Voltage	47	0.75	RD/ GN	5140	V	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—

X320 Passenger Seat Cushion Harness to Body Harness (-A45/AG1/KA1/KB6)





Connector Part Information

Harness Type: Passenger Seat Cushion

OEM Connector: 15509590

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Body

OEM Connector: 15513436

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	19353142	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

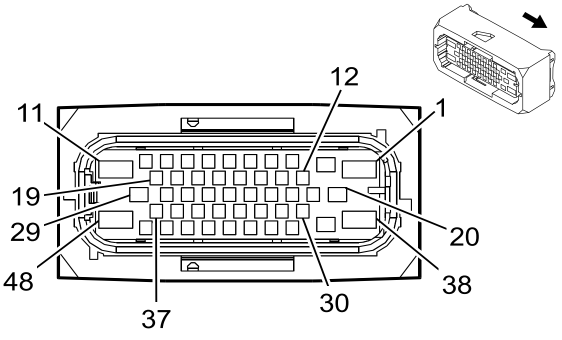
X320 Passenger Seat Cushion Harness to Body Harness (-A45/AG1/KA1/KB6)

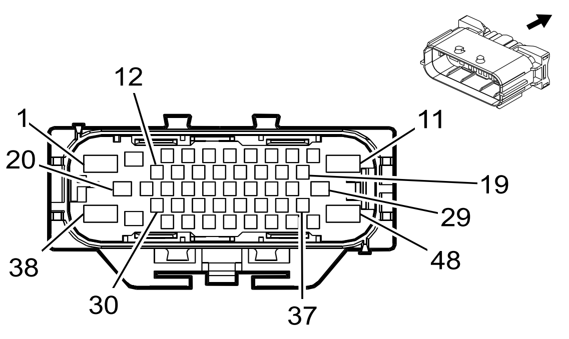
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 5	—	—	—	—	—	Not Occupied	1 - 5	—	—	—	—	—
6	0.35	OG/VT	1362	I	—	Passenger Seat Belt Switch Signal	6	0.35	OG/VT	1362	V	—
7	0.35	BK/OG	1361	I	—	Passenger Seat Belt Switch Low Reference	7	0.35	BK/OG	1361	V	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—
11	2.5	BK	1250	II	—	Ground	11	—	—	—	—	—

X320 Passenger Seat Cushion Harness to Body Harness (-A45/AG1/KA1/KB6) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12 - 13	—	—	—	—	—	Not Occupied	12 - 13	—	—	—	—	—
14	0.35	BU/ RD	5612	I	—	Passenger Seat Belt Tension Sensor 5V Reference	14	0.35	BU/ RD	5612	V	—
15	0.35	VT/ OG	5611	I	—	Passenger Seat Belt Tension Sensor Signal	15	0.35	VT/ OG	5611	V	—
16 - 23	—	—	—	—	—	Not Occupied	16 - 23	—	—	—	—	—
24	0.5	BN/ OG	3067	I	—	Passenger Side Impact Module Low Control	24	0.35	BN/ OG	3067	VI	—
25	0.5	GY/ OG	3480	I	—	Passenger Seat Belt Anchor Pretensioner Low Control	25	0.35	GY/ OG	3480	VI	—
26	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	26	0.35	GN	5060	V	—
27 - 32	—	—	—	—	—	Not Occupied	27 - 32	—	—	—	—	—
33	0.5	OG/ GY	3066	I	—	Passenger Side Impact Module High Control	33	0.35	OG/ GY	3066	VI	—
34	0.5	OG/ BN	3479	I	—	Passenger Seat Belt Anchor Pretensioner High Control	34	0.35	OG/ BN	3479	VI	—
35	0.35	RD/ GN	4440	I	—	Battery Positive Voltage	35	0.35	RD/ GN	4440	V	—
36	0.35	BK/ WH	2751	I	—	Signal Ground	36	0.5	BK/ WH	2751	IV	—
37 - 48	—	—	—	—	—	Not Occupied	37 - 48	—	—	—	—	—

X320 Passenger Seat Cushion Harness to Body Harness (AZ3/AE7/MQ7)





Connector Part Information

Harness Type: Passenger Seat Cushion

OEM Connector: 15509598

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Body

OEM Connector: 15504701

Service Connector: 19329476

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13505807	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
III	19352419	J-35616-19 (BK)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	19353142	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available

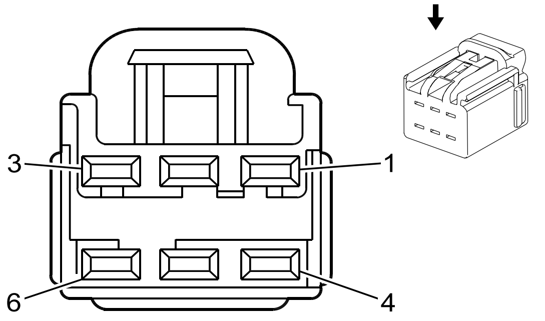
X320 Passenger Seat Cushion Harness to Body Harness (AZ3/AE7/MQ7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 5	—	—	—	—	—	Not Occupied	1 - 5	—	—	—	—	—
6	0.35	OG/VT	1362	I	—	Passenger Seat Belt Switch Signal	6	0.35	OG/VT	1362	III	—
7	0.35	BK/OG	1361	I	—	Passenger Seat Belt Switch Low Reference	7	0.35	BK/OG	1361	III	—
8 - 13	—	—	—	—	—	Not Occupied	8 - 13	—	—	—	—	—
14	0.35	BU/RD	5612	I	—	Passenger Seat Belt Tension Sensor 5V Reference	14	0.35	BU/RD	5612	III	—

X320 Passenger Seat Cushion Harness to Body Harness (AZ3/AE7/MQ7) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.35	VT/ OG	5611	I	—	Passenger Seat Belt Tension Sensor Signal	15	0.35	VT/ OG	5611	III	—
16 - 23	—	—	—	—	—	Not Occupied	16 - 23	—	—	—	—	—
24	0.5	BN/ OG	3067	I	—	Passenger Side Impact Module Low Control	24	0.35	BN/ OG	3067	IV	—
25	0.5	GY/ OG	3480	I	—	Passenger Seat Belt Anchor Pretensioner Low Control	25	0.35	GY/ OG	3480	IV	—
26	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	26	0.35	GN	5060	III	—
27 - 32	—	—	—	—	—	Not Occupied	27 - 32	—	—	—	—	—
33	0.5	OG/ GY	3066	I	—	Passenger Side Impact Module High Control	33	0.35	OG/ GY	3066	IV	—
34	0.5	OG/ BN	3479	I	—	Passenger Seat Belt Anchor Pretensioner High Control	34	0.35	OG/ BN	3479	IV	—
35	0.35	RD/ GN	4440	I	—	Battery Positive Voltage	35	0.35	RD/ GN	4440	III	—
36	0.35	BK/ WH	2751	I	—	Signal Ground	36	0.5	BK/ WH	2751	II	—
37 - 48	—	—	—	—	—	Not Occupied	37 - 48	—	—	—	—	—

X321 Passenger Seat Back Harness to Passenger Seat Cushion Harness



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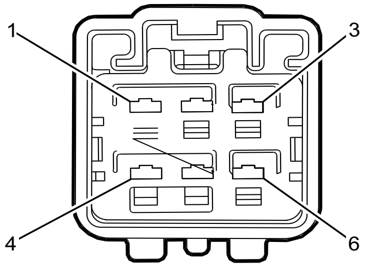


1849802

Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: 7283-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 7282-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M YESC Kaizen Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

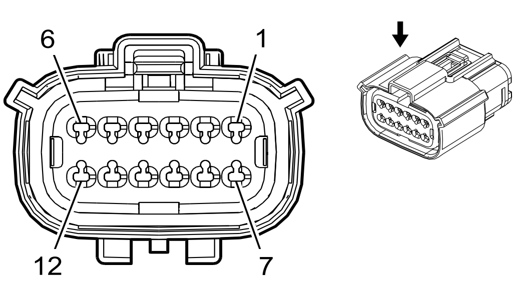
X321 Passenger Seat Back Harness to Passenger Seat Cushion Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BU/YE	792	I	—	Passenger Power Seat Lumbar Motor Down Control	1	1.5	BU/YE	792	II	—
2	0.75	BN/YE	793	I	—	Passenger Power Seat Lumbar Motor Up Control	2	1.5	BN/YE	793	II	—
3	1.5 0.75	BU BU	211 211	I I	AG2/AG6/AL9-A45 AL2	Passenger Power Seat Lumbar Motor Forward Control Passenger Power Seat Lumbar Motor Forward Control	3	1.5	BU	211	II	—

X321 Passenger Seat Back Harness to Passenger Seat Cushion Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
4	1.5 0.75	VT VT	210 210	I I	AG2/AG6 +AL9-A45 AL2	Passenger Power Seat Lumbar Motor Rearward Control Passenger Power Seat Lumbar Motor Rearward Control	4	1.5	VT	210	II	—
5	1.5	GN	76	I	—	Passenger Power Seat Recline Motor Forward Control	5	1.5	GN	76	II	—
6	1.5	BU/ BN	77	I	—	Passenger Power Seat Recline Motor Rearward Control	6	1.5	BU/ BN	77	II	—

X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness



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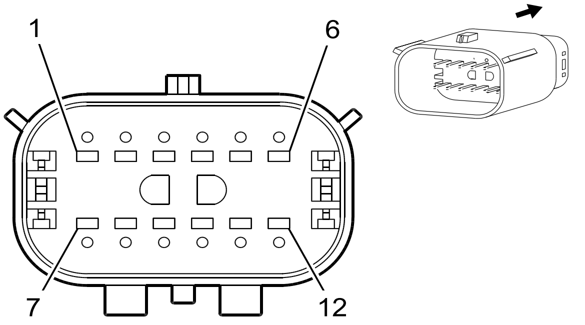


1825167

Connector Part Information

Harness Type: Passenger Seat Back
OEM Connector: 33472-1292
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 150 MX Series, Sealed (YE)

Connector Part Information

Harness Type: Passenger Seat Cushion
OEM Connector: 33482-1336
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 150 MX Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

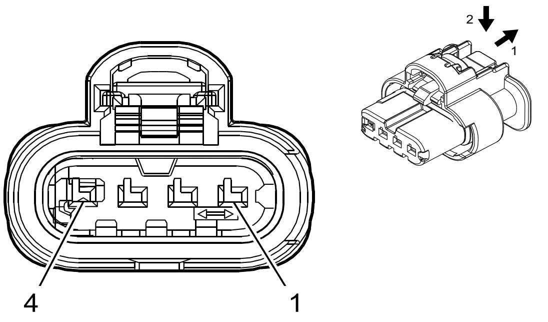
X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG/GY	3066	I	—	Passenger Side Impact Module High Control	1	0.5	OG/GY	3066	II	—
2	0.5	BN/OG	3067	I	—	Passenger Side Impact Module Low Control	2	0.5	BN/OG	3067	II	—
3	0.75	BK	1250	I	—	Ground	3	0.75	BK	1250	II	—
4	0.75	WH/BN	2481	I	—	Passenger Heated Back Element Control	4	0.75	WH/BN	2481	II	—
5	0.35	VT/WH	5908	I	—	Passenger Seat Vent Motor Control 1	5	0.35	VT/WH	5908	II	—
6	0.5	BK/GN	2482	I	—	Passenger Heated Back NTC Low Reference	6	0.5	BK/GN	2482	II	—
7	0.75	GY/BK	2480	I	—	Passenger Heated Seat Element Low Reference	7	0.75	GY/BK	2480	II	—

X322 Passenger Seat Back Harness to Passenger Seat Cushion Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	WH/ BU	2436	I	—	Passenger Heated Back NTC Signal	8	0.5	WH/ BU	2436	II	—
9	0.75	RD/ GN	6140	I	—	Battery Positive Voltage	9	0.75	RD/ GN	6140	II	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—

X363 Hybrid-EV Battery Harness to Body Harness



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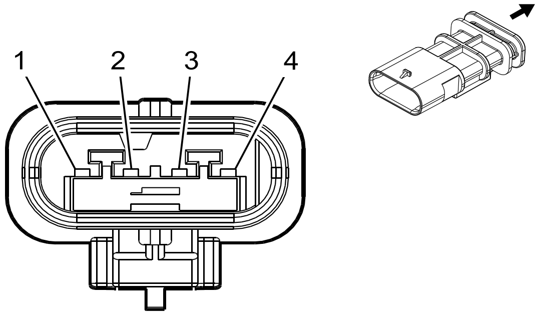


4214866

Connector Part Information

Harness Type: Hybrid-EV Battery
OEM Connector: 33195373
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCON-CB Series, Sealed (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 33178128
Service Connector: 19352602
Description: 4-Way M 1.2 MCON-CB Series, Sealed (BK)

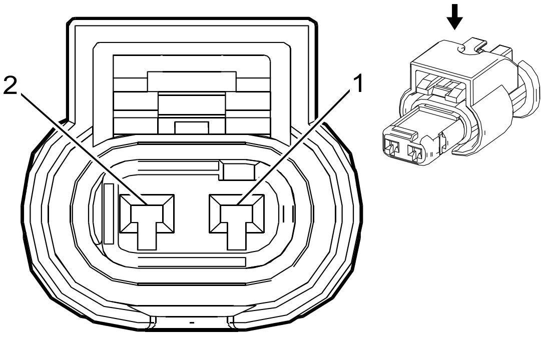
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X363 Hybrid-EV Battery Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK/ BU	6276	I	—	Fan Speed Sensor Low Reference	1	0.5	BK	1250	II	—
2	0.35	YE/ GN	5598	I	—	Fan Speed Signal 1	2	0.35	YE/ GN	5598	II	—
3	0.35	BU/ VT	5599	I	—	Fan Speed Signal 2	3	0.35	BU/ VT	5599	II	—
4	0.5	BN/ WH	6277	I	—	Fan Speed Sensor Control	4	0.5	VT/ BK	739	II	—

X380 Body Harness to Roof Rail Air Bag Jumper Harness



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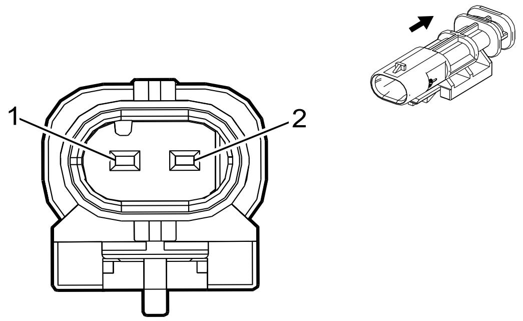


2474755

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 13587886
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Roof Rail Air Bag Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

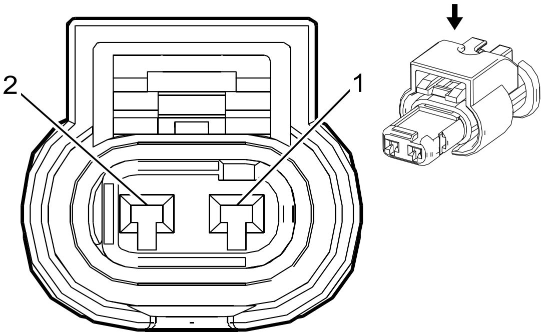
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X380 Body Harness to Roof Rail Air Bag Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	OG/ GN	5019	I	—	Left Front Head Curtain Module High Control	1	0.35	OG/ GN	5019	II	—
2	0.35	VT/ OG	5020	I	—	Left Front Head Curtain Module Low Control	2	0.35	VT/ OG	5020	II	—

X390 Body Harness to Roof Rail Air Bag Jumper Harness



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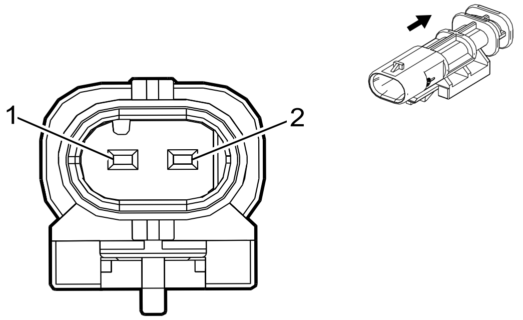


2474755

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 13587886
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

Connector Part Information

Harness Type: Roof Rail Air Bag Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

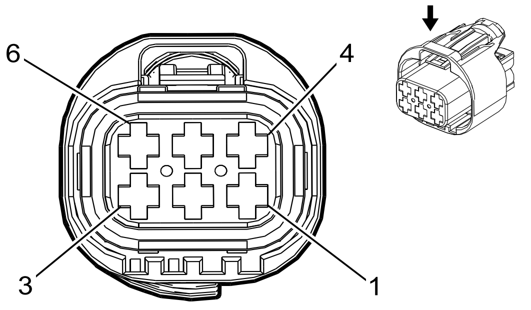
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X390 Body Harness to Roof Rail Air Bag Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	OG/ GY	5021	I	—	Right Front Head Curtain Module High Control	1	0.35	OG/ GY	5021	II	—
2	0.35	WH/ OG	5022	I	—	Right Front Head Curtain Module Low Control	2	0.35	WH/ OG	5022	II	—

X400 Accessory Cargo Kit Harness to Chassis Harness



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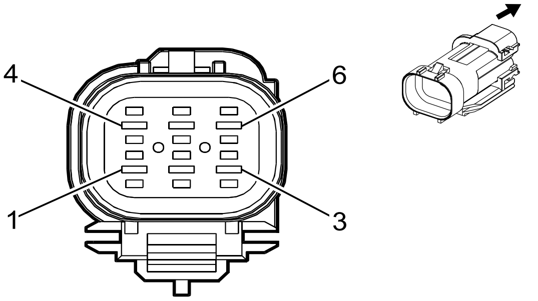


2042939

Connector Part Information

Harness Type: Accessory Cargo Kit
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 13893482
Service Connector: 19367564
Description: 6-Way M 2.8 Series, Sealed (BK)

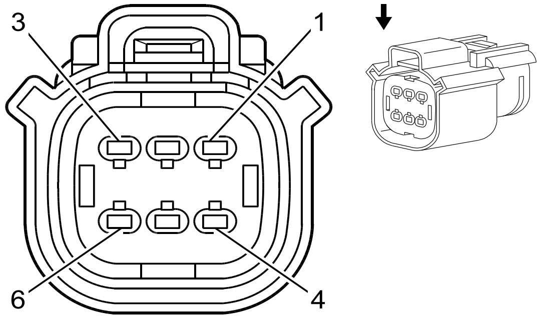
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X400 Accessory Cargo Kit Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	WH/ VT	1430	I	—	Exterior Courtesy Lamp Control	1	0.75	WH/ VT	1430	II	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.5	VT/ GY	1054	I	—	Stop Lamp Control	4	0.5	VT/ GY	1054	II	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	1	BK	1750	I	—	Ground	6	1	BK	1750	II	—

X410 Tail Lamp - Left Harness to Chassis Harness (Heavy Duty-ZYD)



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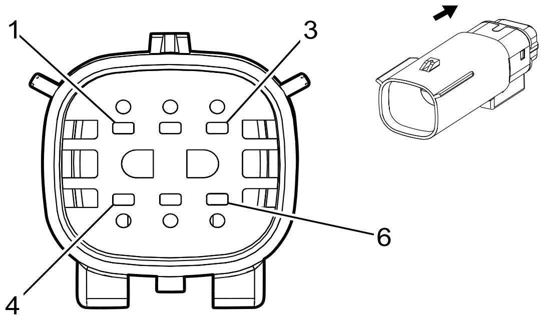


1986159

Connector Part Information

Harness Type: Tail Lamp - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33171740
Service Connector: 19333222
Description: 6-Way M 150 MX Series, Sealed (BK)

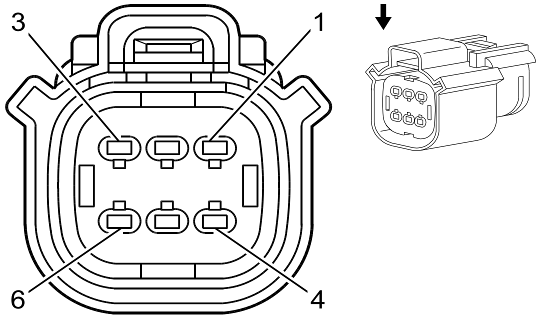
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X410 Tail Lamp - Left Harness to Chassis Harness (Heavy Duty-ZYD)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	YE/GN	18	I	—	Left Rear Stop/Turn Lamp Control	1	0.75	YE/GN	18	II	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.75	GN/WH	24	I	—	Backup Lamp Control	4	0.75	GN/WH	24	II	—
5	0.75	VT/GY	709	I	—	Left Park Lamp Control	5	0.75	VT/GY	709	II	—
6	1.5	BK	1750	I	—	Ground	6	1.5	BK	1750	II	—

X410 Tail Lamp - Left Harness to Chassis Harness (L5P-ZYD)



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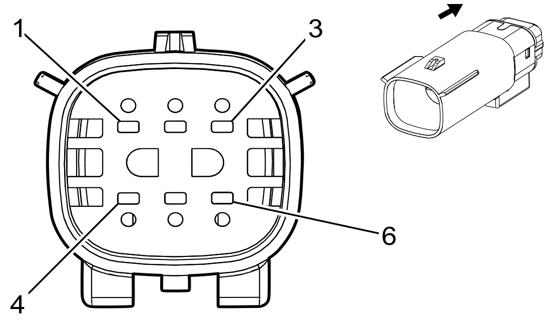


1986159

Connector Part Information

Harness Type: Tail Lamp - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33171740
Service Connector: 19333222
Description: 6-Way M 150 MX Series, Sealed (BK)

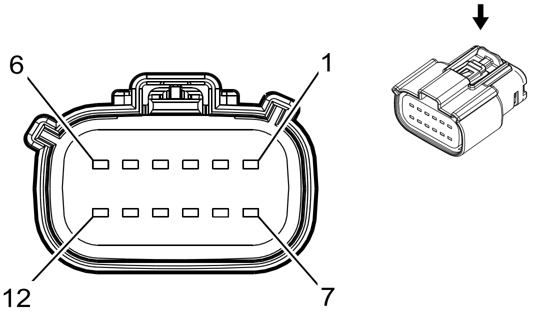
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X410 Tail Lamp - Left Harness to Chassis Harness (L5P-ZYD)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	YE/GN	18	I	—	Left Rear Stop/Turn Lamp Control	1	0.75	YE/GN	18	II	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.75	GN/WH	24	I	—	Backup Lamp Control	4	0.75	GN/WH	24	II	—
5	0.75	VT/GY	709	I	—	Left Park Lamp Control	5	0.75	VT/GY	709	II	—
6	1.5	BK	1750	I	—	Ground	6	1.5	BK	1750	II	—

X410 Tail Lamp - Left Harness to Chassis Harness (Light Duty+ZYD)



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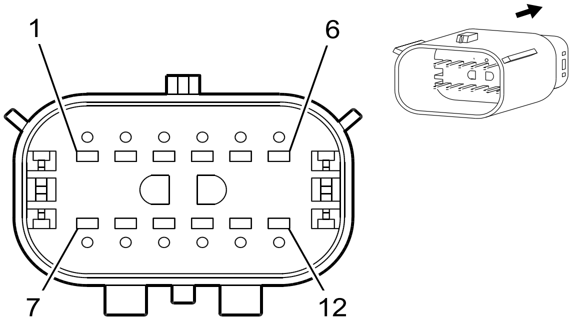


1825167

Connector Part Information

Harness Type: Tail Lamp - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 13942040
Service Connector: 13503542
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

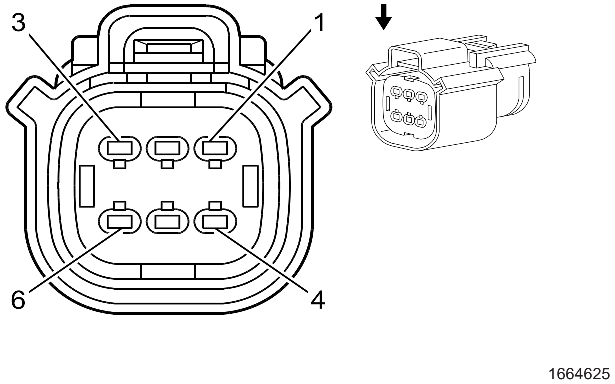
X410 Tail Lamp - Left Harness to Chassis Harness (Light Duty+ZYD)

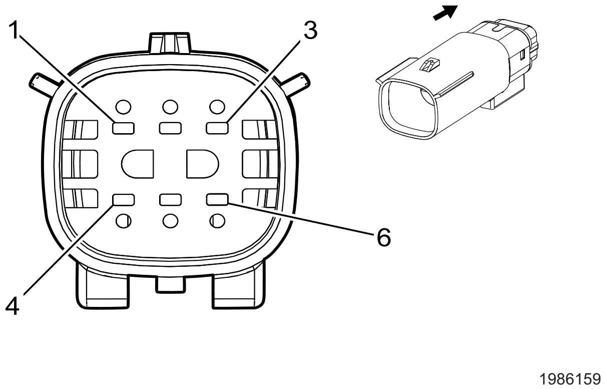
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	YE/GN	18	I	—	Left Rear Stop/Turn Lamp Control	1	0.75	YE/GN	18	II	—
2	0.5	YE/BK	5356	I	—	Left Tail Lamp Outage Detection Signal	2	0.5	YE/BK	5356	III	—
3	1.5	BK	1750	I	—	Ground	3	1.5	BK	1750	III	—
4	0.75	GN/WH	24	I	—	Backup Lamp Control	4	0.75	GN/WH	24	II	—
5	0.75	VT/GY	709	I	—	Left Park Lamp Control	5	0.75	VT/GY	709	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.75	WH/BN	158	I	—	Cargo Lamp Switch Signal	7	0.75	WH/BN	158	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X410 Tail Lamp - Left Harness to Chassis Harness (Light Duty+ZYD) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.75	WH/ VT	1430	I	—	Exterior Courtesy Lamp Control	9	0.75	WH/ VT	1430	II	—
10	0.75	YE/ BN	967	I	—	—	10	0.75	YE/ BN	967	II	—
11	0.5	YE	9003	I	—	—	11	0.5	YE	9003	III	—
12	1	BK	1450	I	—	Ground	12	1	BK	1450	II	—

X410 Tail Lamp - Left Harness to Chassis Harness (Light Duty-ZYD)





Connector Part Information

Harness Type: Tail Lamp - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 13950454
Service Connector: 19367742
Description: 6-Way M 150 MX Series, Sealed (BK)

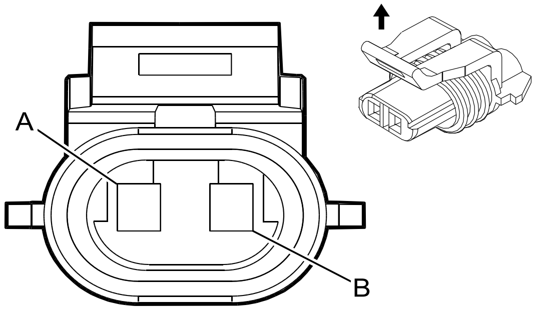
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X410 Tail Lamp - Left Harness to Chassis Harness (Light Duty-ZYD)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	YE/GN	18	I	—	Left Rear Stop/Turn Lamp Control	1	0.75	YE/GN	18	II	—
2	0.5	YE/BK	5356	I	—	Left Tail Lamp Outage Detection Signal	2	0.5	YE/BK	5356	II	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.75	GN/WH	24	I	—	Backup Lamp Control	4	0.75	GN/WH	24	II	—
5	0.75	VT/GY	709	I	—	Left Park Lamp Control	5	0.75	VT/GY	709	II	—
6	1.5	BK	1750	I	—	Ground	6	1.5	BK	1750	II	—

X416 Rear Fascia Harness to License Lamp Harness



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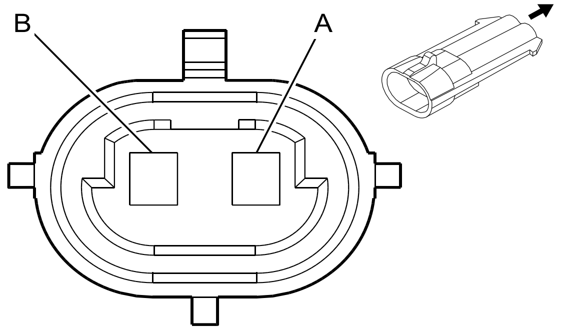


605500

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 12052644
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

Connector Part Information

Harness Type: License Lamp
OEM Connector: 12162343
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (GY)

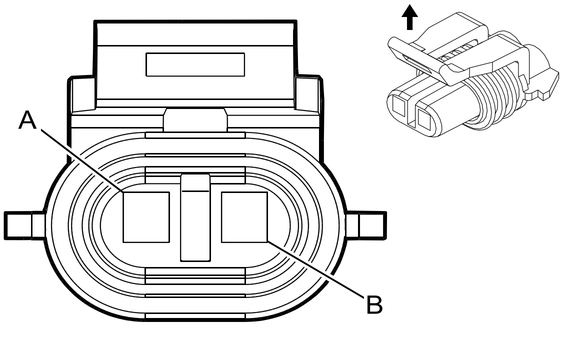
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X416 Rear Fascia Harness to License Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	VT/ GY	709	I	—	Left Park Lamp Control	A	0.5	VT/ GY	709	II	—
B	0.5	BK	1750	I	—	Ground	B	0.5	BK	1750	II	—

X417 Rear Fascia Harness to License Lamp Harness



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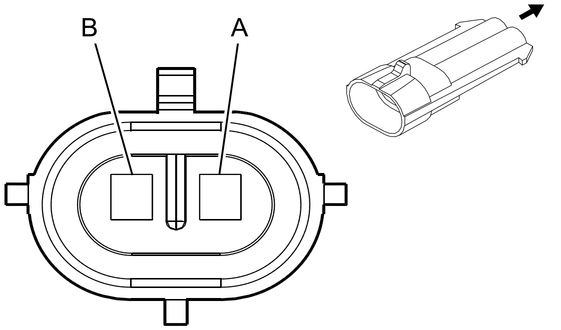


333041

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 12052641
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: License Lamp
OEM Connector: 12162000
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (BK)

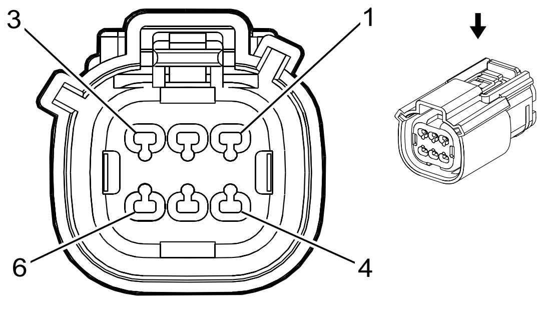
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X417 Rear Fascia Harness to License Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GY/BN	309	I	—	Right Park Lamp Control	A	0.5	GY/BN	309	II	—
B	0.5	BK	1750	I	—	Ground	B	0.5	BK	1750	II	—

X420 Tail Lamp - Right Harness to Chassis Harness (Heavy Duty)



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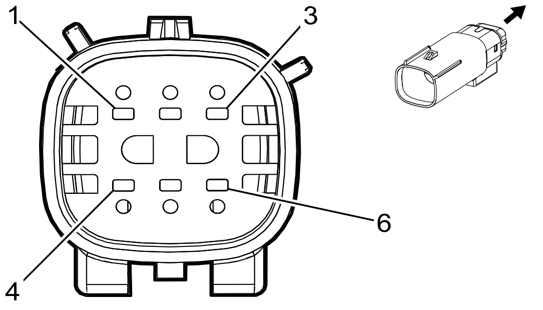


3225221

Connector Part Information

Harness Type: Tail Lamp - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33171739
Service Connector: 19333224
Description: 6-Way M 150 MX Series, Sealed (GY)

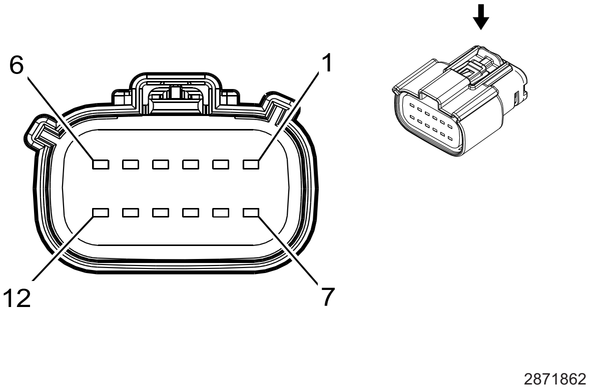
Terminal Part Information

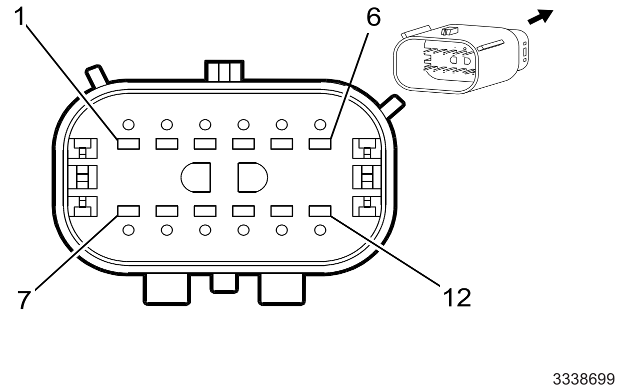
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X420 Tail Lamp - Right Harness to Chassis Harness (Heavy Duty)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GY/BN	309	I	—	Right Park Lamp Control	1	0.75	GY/BN	309	II	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.75	GN/WH	24	I	—	Backup Lamp Control	4	0.75	GN/WH	24	II	—
5	0.75	BN/GN	19	I	—	Right Rear Stop/Turn Lamp Control	5	0.75	BN/GN	19	II	—
6	1.5	BK	2150	I	—	Ground	6	1.5	BK	2150	II	—

X420 Tail Lamp - Right Harness to Chassis Harness (Light Duty+ZYD)





Connector Part Information

Harness Type: Tail Lamp - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180058
Service Connector: 13503541
Description: 12-Way M MAT Series, Sealed (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

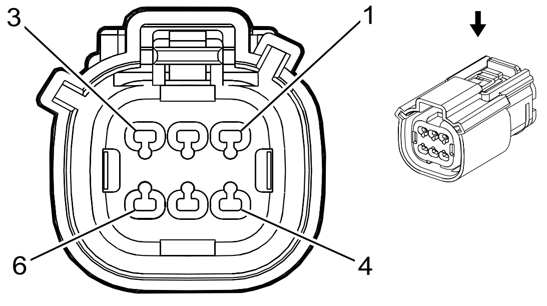
X420 Tail Lamp - Right Harness to Chassis Harness (Light Duty+ZYD)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GY/ BN	309	I	—	Right Park Lamp Control	1	0.75	GY/ BN	309	II	—
2	0.5	VT/ YE	5357	I	—	Right Tail Lamp Outage Detection Signal	2	0.5	VT/ YE	5357	III	—
3	1.5	BK	2150	I	—	Ground	3	1.5	BK	2150	III	—
4	0.75	GN/ WH	24	I	—	Backup Lamp Control	4	0.75	GN/ WH	24	II	—
5	0.75	BN/ GN	19	I	—	Right Rear Stop/Turn Lamp Control	5	0.75	BN/ GN	19	II	—
6	0.5	VT/ GY	1054	I	—	Stop Lamp Control	6	0.5	VT/ GY	1054	III	—
7	0.75	WH/ BN	158	I	—	Cargo Lamp Switch Signal	7	0.75	WH/ BN	158	II	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.75	RD/ GN	968	I	—	—	10	0.75	RD/ GN	968	II	—

X420 Tail Lamp - Right Harness to Chassis Harness (Light Duty+ZYD) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	GY/GN	6190	I	—	Lift Glass/Rear Compartment Lid Exterior Release Signal	11	0.5	GY/GN	6190	III	—
12	1	BK	1450	I	—	Ground	12	1	BK	1450	II	—

X420 Tail Lamp - Right Harness to Chassis Harness (Light Duty-ZYD)



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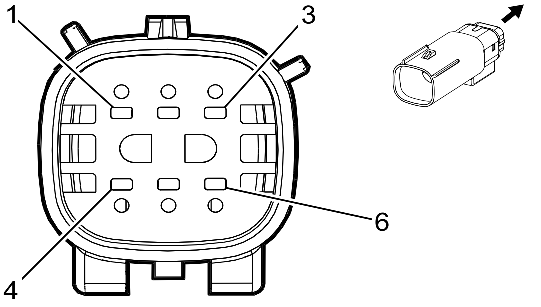


3225221

Connector Part Information

Harness Type: Tail Lamp - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33171739
Service Connector: 19333224
Description: 6-Way M 150 MX Series, Sealed (GY)

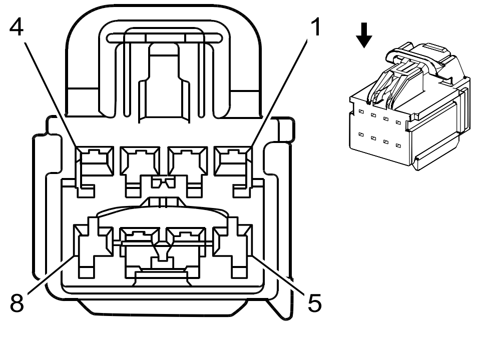
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X420 Tail Lamp - Right Harness to Chassis Harness (Light Duty-ZYD)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GY/ BN	309	I	—	Right Park Lamp Control	1	0.75	GY/ BN	309	II	—
2	0.5	VT/ YE	5357	I	—	Right Tail Lamp Outage Detection Signal	2	0.5	VT/ YE	5357	II	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.75	GN/ WH	24	I	—	Backup Lamp Control	4	0.75	GN/ WH	24	II	—
5	0.75	BN/ GN	19	I	—	Right Rear Stop/Turn Lamp Control	5	0.75	BN/ GN	19	II	—
6	1.5	BK	2150	I	—	Ground	6	1.5	BK	2150	II	—

X455 Tail Lamp Harness to Left Bin Jumper Harness (ZYD)



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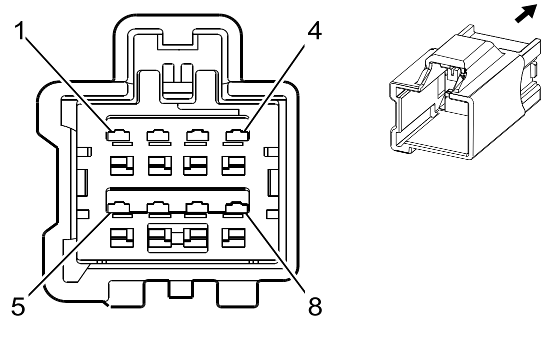


1849807

Connector Part Information

Harness Type: Left Tail Lamp
OEM Connector: 10846802
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Left Bin Jumper
OEM Connector: 10847035
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 YESC Kaizen Series (L-GY)

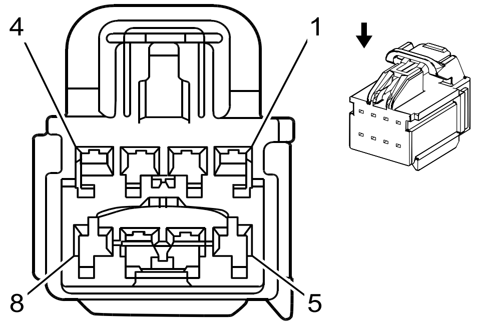
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X455 Tail Lamp Harness to Left Bin Jumper Harness (ZYD)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE	9003	I	—	Lift Glass/ Rear Compartment Lid Exterior Release Signal	1	0.5	YE	9003	II	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.75	WH/ BN	6815	I	—	Inadvertent Power Control	3	0.75	WH/ BN	6815	II	—
4 - 5	—	—	—	—	—	Not Occupied	4 - 5	—	—	—	—	—
6	0.75	WH/ VT	1430	I	—	Exterior Courtesy Lamp Control	6	0.75	WH/ VT	1430	II	—
7	1	BK	1450	I	—	Ground	7	1	BK	1450	II	—
8	0.75	YE/ BN	967	I	—	Configurable Provision 3 Control	8	0.75	YE/ BN	967	II	—

X456 Right Tail Lamp Harness to Right Bin jumper Harness (ZYD)



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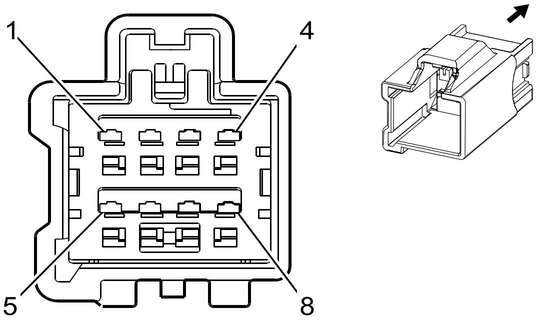


1849807

Connector Part Information

Harness Type: Right Tail Lamp
OEM Connector: 10846802
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Right Bin Jumper
OEM Connector: 10847035
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 YESC Kaizen Series (L-GY)

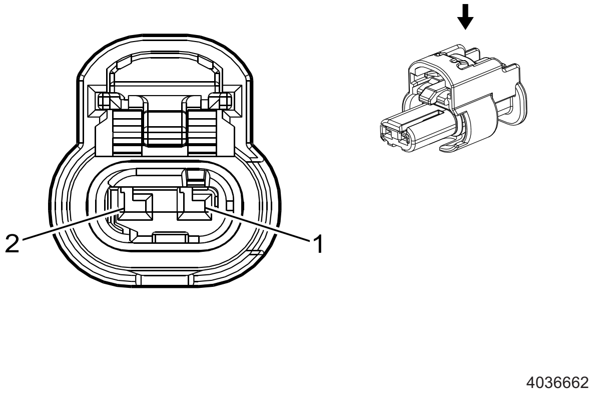
Terminal Part Information

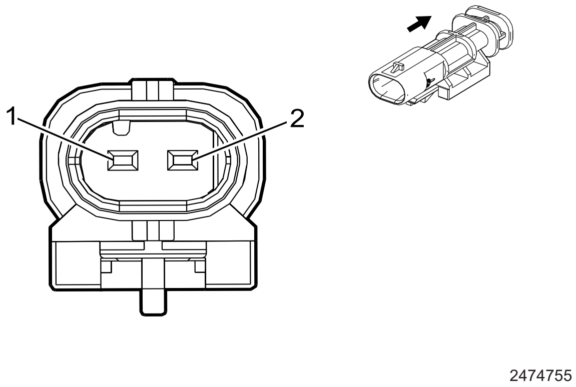
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X456 Right Tail Lamp Harness to Right Bin jumper Harness (ZYD)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/GN	6190	I	—	Lift Glass/Rear Compartment Lid Exterior Release Signal	1	0.5	GY/GN	6190	II	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.75	WH/BN	6815	I	—	Inadvertent Power Control	3	0.75	WH/BN	6815	II	—
4 - 6	—	—	—	—	—	Not Occupied	4 - 6	—	—	—	—	—
7	1	BK	1450	I	—	Ground	7	1	BK	1450	II	—
8	0.75	RD/GN	968	I	—	Configurable Provision 4 Control	8	0.5	RD/GN	968	II	—

X457 CHMSL Jumper Harness to Right Bin Jumper Harness (ZYD)





Connector Part Information

Harness Type: CHMSL Jumper
OEM Connector: 13591334
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

Connector Part Information

Harness Type: Right Bin Jumper
OEM Connector: 13591337
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

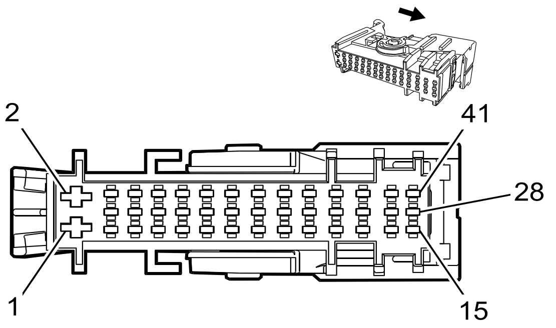
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X457 CHMSL Jumper Harness to Right Bin Jumper Harness (ZYD)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/GY	1054	I	—	Stop Lamp Control	1	0.5	VT/GY	1054	II	—
2	0.5	BK	1450	I	—	Ground	2	0.5	BK	1450	II	—

X500 Driver Door Harness to Body Harness



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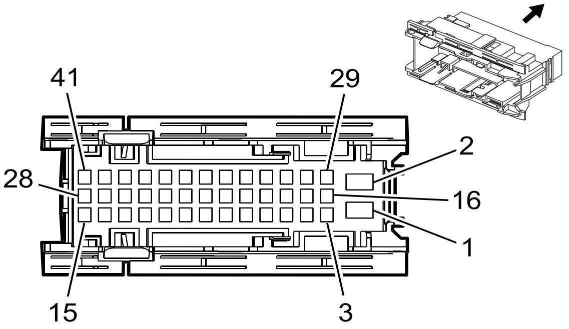


2474679

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13600509
Service Connector: Service by Harness - See Part Catalog
Description: 41-Way F 4.8 Timer, 1.5 DSQ Series

Connector Part Information

Harness Type: Body
OEM Connector: 13946876
Service Connector: 13587760
Description: 41-Way M 1.5, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13575556	J-35616-34 (YE)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13575593	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	2
V	13575706	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VI	13575775	J-35616-34 (YE)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VII	13575776	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	2
VIII	13575776	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	C
IX	13575857	J-35616-41 (BU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

X500 Driver Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/ BU	1842	II	—	Battery Positive Voltage	1	2.5	RD/ BU	1842	IX	—
2	3	BK	1150	II	—	Ground	2	4	BK	1150	V	—
3	0.5	GY/ WH	5996	I	—	Driver Outside Rear View Mirror Puddle Lamp Control	3	0.5	GY/ GN	5996	IV	—

X500 Driver Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
4	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	4	0.5	WH	3398	VII	—
5	0.35	YE/BK	1690	I	—	Automatic Day/Night Mirror Signal	5	0.35	YE/WH	1690	VI	—
6	0.35	BK/YE	1691	I	—	Automatic Day/Night Mirror Low Reference	6	0.35	BK/YE	1691	VI	—
7	0.35 0.5	BU/GN WH/GN	614 3412	I I	— —	Memory Seat Switch Set Signal Driver Mirror Motor Fold In Control	7	0.35 0.5	BU/GN WH/GN	614 3412	VI VII	— —
8	0.35 0.5	WH GY/WH	615 3411	I I	— —	Memory Seat Switch Signal 1 Driver Mirror Motor Fold Out Control	8	0.35 0.5	WH GY/WH	615 3411	VI VII	— —
9	0.5	WH/VT	1430	I	—	Exterior Courtesy Lamp Control	9	0.5	WH/VT	1430	VII	—
10	1	BU	201	I	—	Left Front Speaker Control (+) 1 Left Front Speaker Control (+) 1	10	0.75 1	BU BU	201 201	VIII III	— —
11	0.5	VT/GY	709	I	—	Left Park Lamp Control	11	0.5	VT/GY	709	VII	—
12	0.35	GY	745	I	—	Left Front Door Ajar Switch Signal	12	0.35	GY	745	VI	—
13	0.35	WH/VT	3270	I	—	Driver Door Lock Motor Status Signal Driver Door Lock Motor Status Signal	13	0.35 0.35	WH/VT WH/VT	3270 3270	VI IV	— —
14	0.5	OG/GN	2132	I	—	Left Front Side Impact Sensing Module Signal	14	0.35	OG/GN	2132	VI	—
15	0.5	BK/OG	6628	I	—	Left Front Side Impact Sensing Module Low Reference	15	0.35	BK/OG	6628	VI	—
16	0.35	WH	6816	I	—	Indicator Dimming Control	16	0.5	WH	6816	VII	—
17	0.35	BN/WH	781	I	—	Driver Door Lock Switch Unlock Signal	17	0.35	BN/WH	781	VI	—

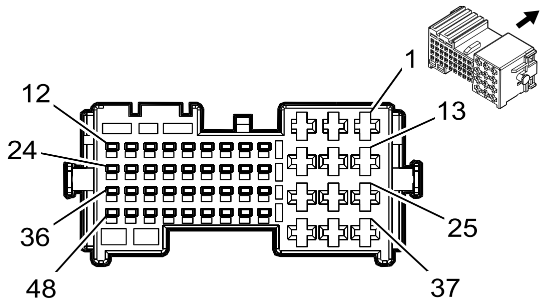
X500 Driver Door Harness to Body Harness (cont'd)

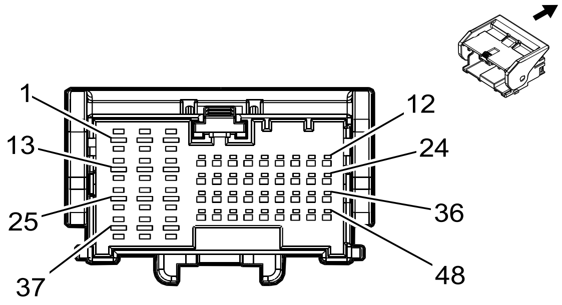
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
18	0.35	BN/ YE	780	I	—	Driver Door Lock Switch Lock Signal	18	0.35	BN/ YE	780	VI	—
19	0.75	BN/ BK	294	I	—	Door Lock Actuator Unlock Control	19	0.75	BN/ YE	294	VIII	—
20	0.75	GY	5911	I	—	Door Lock Actuator Lock Control 2	20	0.75	GY	5911	VIII	—
21	0.35	BK/ BU	5978	I	—	Memory Switch Low Reference	21	0.35	BK/ BU	5978	VI	—
22	—	—	—	—	—	Not Occupied	22	—	—	—	—	—
23	1	BN/ BU	118	I	—	Left Front Speaker Signal (-) 1 Left Front Speaker Signal (-) 1	23	0.75 1	BN/ BU BN/ BU	118 118	VIII III	— —
24 - 25	—	—	—	—	—	Not Occupied	24 - 25	—	—	—	—	—
26	0.35	BU/ VT	1124	I	—	Door Lock Key Switch Unlock Signal Door Lock Key Switch Unlock Signal	26	0.35 0.35	BU/ VT BU/ VT	1124 1124	VI IV	— —
27 - 28	—	—	—	—	—	Not Occupied	27 - 28	—	—	—	—	—
29	0.35	YE	6817	I	—	LED Backlight Dimming Control	29	0.35	YE	6817	VI	—
30	0.35	WH/ YE	7557	I	—	LED Ambient Lighting Control 1	30	0.35	WH/ YE	7557	VI	—
31	0.5	BN/ OG	2267	I	—	Mirror Heating Element Control	31	0.5	BN/ YE	2267	VII	—
32	0.35	GY	5697	I	—	Child Lockout Indicator Control	32	0.35	GY	5697	VI	—
33	0.5	GN/ YE	6134	I	—	Local Inter-connect Network Serial Data Bus 3	33	0.5	GN/ YE	6134	IV	—
34	0.5	GN/ WH	7530	I	—	Local Inter-connect Network Serial Data Bus 8	34	0.5	GN/ WH	7530	VII	—

X500 Driver Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
35	0.35	BN/ RD	3265	I	—	Child Security Lock Switch Signal	35	0.35	YE/ BN	3265	VI	—
36	0.5	GN/ BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	36	0.5	GN/ BK	3396	VII	—
37	—	—	—	—	—	Not Occupied	37	—	—	—	—	—
38	0.5	YE/ VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	38	0.5	YE/ VT	3397	VII	—
39	—	—	—	—	—	Not Occupied	39	—	—	—	—	—
40	0.5	RD/ VT	1940	I	—	Battery Positive Voltage	40	0.5	RD/ VT	1940	VII	—
41	0.5	BU/ WH	1314	I	—	Left Front Turn Signal Lamp Control	41	0.75	BU/ WH	1314	VIII	—

X505 Driver Door Harness to Door Lock Harness





Connector Part Information

Harness Type: Driver Door
OEM Connector: 13889713
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.2 MCON, 2.8 MCP Series

Connector Part Information

Harness Type: Door Lock
OEM Connector: 15512031
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way M 1.2 MCON, 2.8 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X505 Driver Door Harness to Door Lock Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE	6817	II	—	LED Backlight Dimming Control LED Backlight Dimming Control	1	0.35	YE	6817	IV	—
2	0.35	WH/YE	7557	II	—	LED Ambient Lighting Control 1	2	0.35	WH/YE	7557	IV	—
3	0.35	WH	6816	II	—	Indicator Dimming Control	3	0.35	WH	6816	IV	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	BN/BK	3389	I	—	Driver Mirror Motor Right (+) Left (-) Control	5	0.75	BN/BK	3389	III	—

X505 Driver Door Harness to Door Lock Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	VT/ BU	3390	I	—	Driver Mirror Motor Up (+) Down (-) Control	6	0.75	VT/ BU	3390	III	—
7	0.5	YE/ BN	3391	I	—	Driver Mirror Motor Common Control	7	0.75	YE/ BN	3391	III	—
8	0.5	GY/ WH	3411	I	—	Driver Mirror Motor Fold Out Control	8	0.75	GY/ WH	3411	III	—
9	0.5	WH/ GN	3412	I	—	Driver Mirror Motor Fold In Control	9	0.75	WH/ GN	3412	III	—
10	0.35	GY/ BN	3394	I	—	Driver Mirror Position Sensor Up (+) Down (-) Signal	10	0.35	GY/ BN	3394	III	—
11	0.5	BN/ BK	3389	I	—	Driver Mirror Motor Right (+) Left (-) Control	11	0.75	BN/ BK	3389	III	—
12	0.35	VT/ RD	3392	I	—	Driver Mirror Position Sensor 5V Reference	12	0.35	VT/ RD	3392	III	—
13	0.35	WH/ YE	3395	II	—	Driver Mirror Position Sensor Left (-) Right (+) Signal	13	0.35	WH/ YE	3395	IV	—
14	0.35	BK/ BN	3393	II	—	Driver Mirror Position Sensor Low Reference	14	0.35	BK/ BN	3393	IV	—
15 - 16	—	—	—	—	—	Not Occupied	15 - 16	—	—	—	—	—
17	0.5	BK	1150	I	—	Ground	17	0.35	BK	1150	III	—
18 - 21	—	—	—	—	—	Not Occupied	18 - 21	—	—	—	—	—
22	0.5	RD/ VT	1940	I	—	Battery Positive Voltage	22	0.5	RD/ VT	1940	III	—
23	0.75	BK	1150	I	—	Ground	23	0.75	BK	1150	III	—
24	—	—	—	—	—	Not Occupied	24	—	—	—	—	—
25	0.5	GY/ WH	3411	II	—	Driver Mirror Motor Fold Out Control	25	0.75	GY/ WH	3411	IV	—
26	0.5	WH/ GN	3412	II	—	Driver Mirror Motor Fold In Control	26	0.75	WH/ GN	3412	IV	—
27 - 28	—	—	—	—	—	Not Occupied	27 - 28	—	—	—	—	—

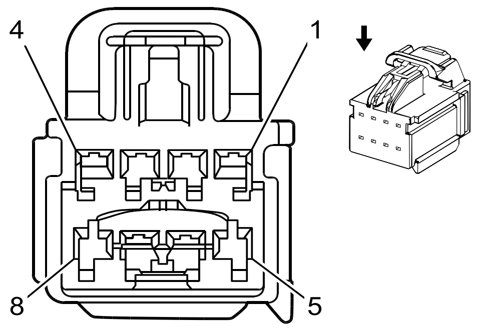
X505 Driver Door Harness to Door Lock Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0.35	GY	1136	I	—	Power Window Master Switch Left Front Down Signal	29	0.35	GY	1136	III	—
30	0.35	GN/WH	1300	I	—	Power Window Master Switch Left Front Up Signal	30	0.35	GN/WH	1300	III	—
31	0.35	GN/VT	7628	I	—	Power Window Motor Left Front Express Control	31	0.35	GN/VT	7628	III	—
32	0.35	BK/BU	5978	I	—	Memory Switch Low Reference	32	0.35	BK/BU	5978	III	—
33	0.35	BU/GN	614	I	—	Memory Seat Switch Set Signal	33	0.35	BU/GN	614	III	—
34	0.35	WH	615	I	—	Memory Seat Switch Signal 1	34	0.35	WH	615	III	—
35	—	—	—	—	—	Not Occupied	35	—	—	—	—	—
36	0.5	GN/YE	6134	I	—	Local Interconnect Network Serial Data Bus 3	36	0.5	GN/YE	6134	III	—
37	0.5	GN/WH	7530	II	—	Local Interconnect Network Serial Data Bus 8	37	0.5	GN/WH	7530	IV	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—
40	0.35	BN/RD	3265	I	—	Child Security Lock Switch Signal	40	0.35	YE/BN	3265	III	—
41	0.35	WH/VT	3270	I	—	Driver Door Lock Motor Status Signal	41	0.35	WH/VT	3270	III	—
42	0.5	GN/BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	42	0.75	GN/BK	3396	III	—
43	0.5	YE/VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	43	0.75	YE/VT	3397	III	—
44	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	44	0.75	WH	3398	III	—

X505 Driver Door Harness to Door Lock Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
45	0.35	GY	5697	I	—	Child Lockout Indicator Control	45	0.35	GY	5697	III	—
46	0.35	BU/ VT	1124	I	—	Door Lock Key Switch Unlock Signal	46	0.35	BU/ VT	1124	III	—
47	0.35	BN/ WH	781	I	—	Driver Door Lock Switch Unlock Signal	47	0.35	BN/ WH	781	III	—
48	0.35	BN/ YE	780	I	—	Driver Door Lock Switch Lock Signal	48	0.35	BN/ YE	780	III	—

X506 Door Lock Harness to Driver Door Harness



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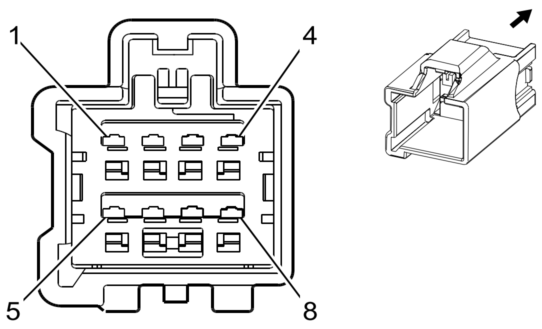


1849807

Connector Part Information

Harness Type: Door Lock
OEM Connector: 10846802
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Driver Door
OEM Connector: 10847035
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 YESC Kaizen Series (L-GY)

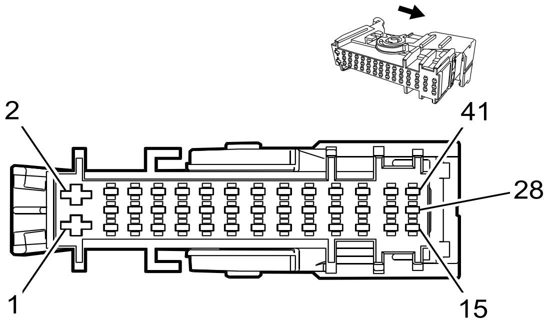
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X506 Door Lock Harness to Driver Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35	BN/ YE	780	I	—	Driver Door Lock Switch Lock Signal	4	0.35	BN/ YE	780	II	—
5	0.35	BN/ WH	781	I	—	Driver Door Lock Switch Unlock Signal	5	0.35	BN/ WH	781	II	—
6	0.35	YE	6817	I	—	LED Backlight Dimming Control	6	0.35	YE	6817	II	—
7	0.35	BK	1150	I	—	Ground	7	0.5	BK	1150	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X600 Passenger Door Harness to Body Harness



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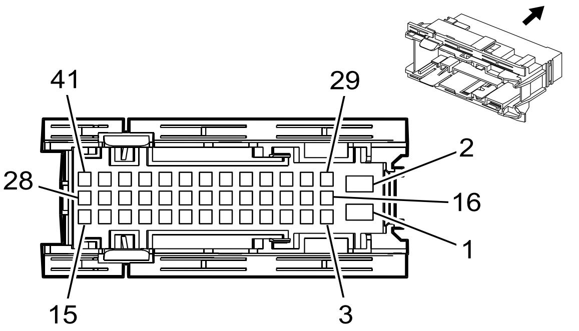


2474679

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13600509
Service Connector: Service by Harness - See Part Catalog
Description: 41-Way F 4.8 Timer, 1.5 DSQ Series

Connector Part Information

Harness Type: Body
OEM Connector: 13946876
Service Connector: 13587760
Description: 41-Way M 1.5, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13575556	J-35616-34 (YE)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13575593	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	C	A
V	13575775	J-35616-34 (YE)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13575776	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	2
VII	13575776	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	C
VIII	13575857	J-35616-41 (BU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IX	13582220	J-35616-32 (OR)	J-38125-560	Not Available	Not Available	Not Available	Not Available

X600 Passenger Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/WH	1340	II	—	Battery Positive Voltage	1	2.5	RD/WH	1340	VIII	—
2	2.5	BK	1250	II	—	Ground Ground	2	2.5 2.5	BK BK	1250 1250	IX VIII	— —
3	0.5	GY/GN	5996	I	—	Driver Outside Rear View Mirror Puddle Lamp Control	3	0.5	GY/GN	5996	VI	—

X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
4	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	4	0.5	WH	3398	VI	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
7	0.5	WH/ GN	3412	I	—	Driver Mirror Motor Fold In Control	7	0.5	WH/ GN	3412	VI	—
8	0.5	GY/ WH	3411	I	—	Driver Mirror Motor Fold Out Control	8	0.5	GY/ WH	3411	VI	—
9	0.5	WH/ VT	1430	I	—	Exterior Courtesy Lamp Control	9	0.5	WH/ VT	1430	VI	—
10	1	YE/ BK	117	I	—	Right Front Speaker Signal (-) 1 Right Front Speaker Signal (-) 1	10	0.75 1	YE/ BK YE/ BK	117 117	VII IV	— —
11	0.5	GY/ BN	309	I	—	Right Park Lamp Control	11	0.5	GY/ BN	309	VI	—
12	0.35	GY	746	I	—	Right Front Door Ajar Switch Signal	12	0.35	GY	746	V	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	OG/ GN	2134	I	—	Right Front Side Impact Sensing Module Signal	14	0.35	BN/ OG	2134	V	—
15	0.5	BK/ OG	6629	I	—	Right Front Side Impact Sensing Module Low Reference	15	0.35	BK/ OG	6629	V	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.35	BN/ VT	245	I	—	Passenger Door Lock Switch Unlock Control	17	0.35	BN/ VT	245	V	—
18	0.35	YE/ BK	244	I	—	Passenger Door Lock Switch Lock Control	18	0.35	YE/ VT	244	V	—
19	0.75	BN/ YE	294	I	—	Door Lock Actuator Unlock Control	19	0.75	BN/ YE	294	VII	—
20	0.75	GY	295	I	—	Door Lock Actuator Lock Control	20	0.75	GY	295	VII	—

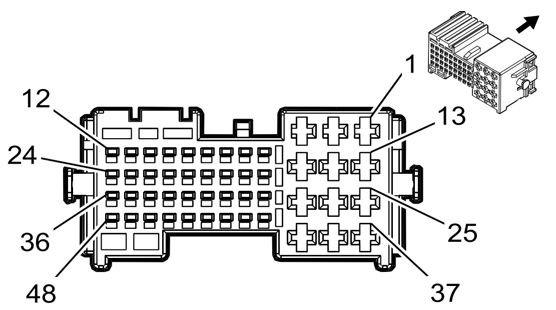
X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
21	0.5	BK/ BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	21	0.35	BK/ BU	61	V	—
22	—	—	—	—	—	Not Occupied	22	—	—	—	—	—
23	1	YE	200	I	—	Right Front Speaker Control (+) 1 Right Front Speaker Control (+) 1	23	0.75 1	YE YE	200 200	VII III	— —
24	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	24	0.35	BU/ GY	636	V	—
25 - 28	—	—	—	—	—	Not Occupied	25 - 28	—	—	—	—	—
29	0.35	YE	6817	I	—	LED Backlight Dimming Control	29	0.5	YE	6817	VI	—
30	0.35	WH/ YE	7557	I	—	LED Ambient Lighting Control 1	30	0.35	WH/ YE	7557	V	—
31	0.5	BN/ OG	2267	I	—	Mirror Heating Element Control	31	0.5	BN/ YE	2267	VI	—
32	—	—	—	—	—	Not Occupied	32	—	—	—	—	—
33	0.5	GN/ YE	6134	I	—	Local Inter-connect Network Serial Data Bus 3	33	0.5	GN/ YE	6134	VI	—
34	0.5	GN/ WH	7530	I	—	Local Inter-connect Network Serial Data Bus 8	34	0.5	GN/ WH	7530	VI	—
35	—	—	—	—	—	Not Occupied	35	—	—	—	—	—
36	0.5	GN/ BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	36	0.5	GN/ BK	3396	VI	—
37	—	—	—	—	—	Not Occupied	37	—	—	—	—	—
38	0.5	YE/ VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	38	0.5	YE/ VT	3397	VI	—
39 - 40	—	—	—	—	—	Not Occupied	39 - 40	—	—	—	—	—

X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
41	0.5	GN/ VT	1315	I	—	Right Front Turn Signal Lamp Control	41	0.75	GN/ VT	1315	VII	—

X605 Passenger Door Harness to Door Lock Harness (A31)



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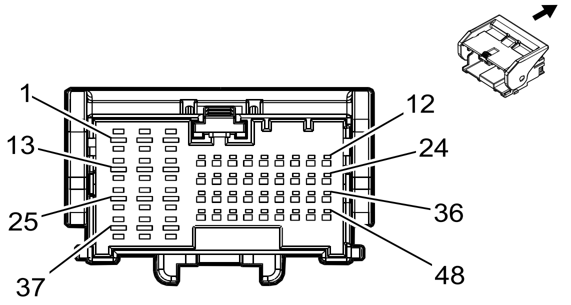


3277901

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13889713
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.2 MCON, 2.8 MCP Series

Connector Part Information

Harness Type: Door Lock
OEM Connector: 15512031
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way M 1.2 MCON, 2.8 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X605 Passenger Door Harness to Door Lock Harness (A31)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE	6817	II	—	LED Backlight Dimming Control	1	0.35	YE	6817	IV	—
2	0.35	WH/ YE	7557	II	—	LED Ambient Lighting Control 1	2	0.35	WH/ YE	7557	IV	—
3 - 5	—	—	—	—	—	Not Occupied	3 - 5	—	—	—	—	—
6	0.5	YE/ VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	6	0.75	YE/ VT	3397	III	—
7	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	7	0.75	WH	3398	III	—
8	0.5	YE/ GY	3413	I	—	Passenger Mirror Motor Fold Out Control	8	0.75	YE/ WH	3413	III	—

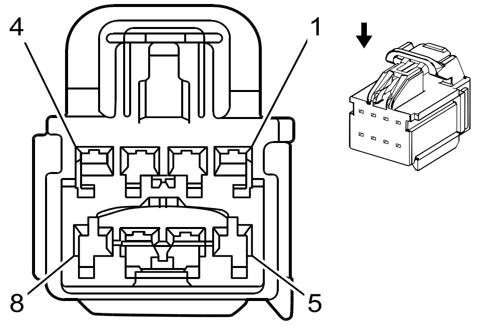
X605 Passenger Door Harness to Door Lock Harness (A31) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	BU/ GY	3414	I	—	Passenger Mirror Motor Fold In Control	9	0.75	BU/ GY	3414	III	—
10	0.35	BU/ YE	3401	I	—	Passenger Mirror Position Sensor Up (+) Down (-) Signal	10	0.35	BU/ YE	3401	III	—
11	0.5	GN/ BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	11	0.75	GN/ BK	3396	III	—
12	0.35	YE/ RD	3399	I	—	Passenger Mirror Position Sensor 5V Reference	12	0.35	YE/ RD	3399	III	—
13	0.35	VT/ WH	3403	II	—	Passenger Mirror Position Sensor Left (-) Right (+) Signal	13	0.35	VT/ WH	3403	IV	—
14	0.35	BK/ GN	3400	II	—	Passenger Mirror Position Sensor Low Reference	14	0.35	BK/ GN	3400	IV	—
15	2.5	BK	1250	II	—	Ground	15	2.5	BK	1250	IV	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.5	BK	1250	I	—	Ground	17	0.35	BK	1250	III	—
18 - 24	—	—	—	—	—	Not Occupied	18 - 24	—	—	—	—	—
25	2.5	GN/ GY	3387	II	—	Power Window Motor Passenger Up Control	25	2.5	GN/ GY	3387	IV	—
26	2.5	YE/ BU	3388	II	—	Power Window Motor Passenger Down Control	26	2.5	YE/ BU	3388	IV	—
27	2.5	RD/ WH	1340	II	—	Battery Positive Voltage	27	2.5	RD/ WH	1340	IV	—
28 - 35	—	—	—	—	—	Not Occupied	28 - 35	—	—	—	—	—
36	0.5	GN/ YE	6134	I	—	Local Interconnect Network Serial Data Bus 3	36	0.5	GN/ YE	6134	III	—

X605 Passenger Door Harness to Door Lock Harness (A31) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
37	0.5	GN/ WH	7530	II	—	Local Inter-connect Network Serial Data Bus 8	37	0.5	GN/ WH	7530	IV	—
38 - 45	—	—	—	—	—	Not Occupied	38 - 45	—	—	—	—	—
46	0.35	GY	746	I	—	Right Front Door Ajar Switch Signal	46	0.35	GY	746	III	—
47	0.35	BN/ VT	245	I	—	Passenger Door Lock Switch Unlock Control	47	0.35	BN/ VT	245	III	—
48	0.35	YE/ BK	244	I	—	Passenger Door Lock Switch Lock Control	48	0.35	YE/ VT	244	III	—

X606 Door Lock Harness to Passenger Door Harness (-A31)



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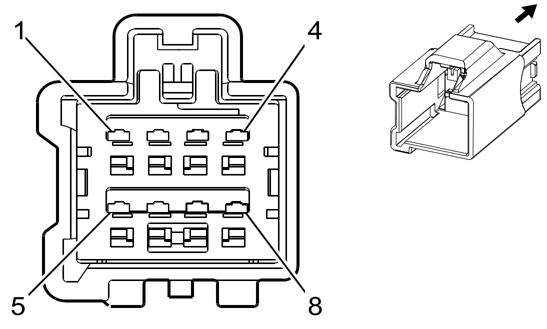


1849807

Connector Part Information

Harness Type: Door Lock
OEM Connector: 10846802
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 10847035
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 YESC Kaizen Series (L-GY)

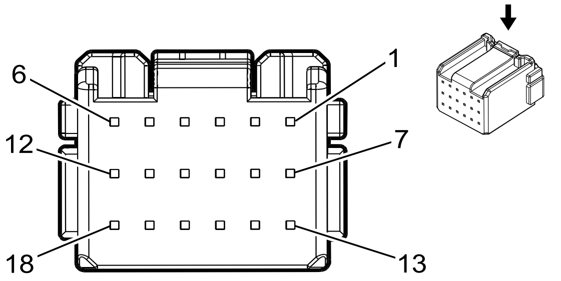
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X606 Door Lock Harness to Passenger Door Harness (-A31)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35	YE/ VT	244	I	—	Passenger Door Lock Switch Lock Control	4	0.35	YE/ BK	244	II	—
5	0.35	BN/ VT	245	I	—	Passenger Door Lock Switch Unlock Control	5	0.35	BN/ VT	245	II	—
6	0.35	YE	6817	I	—	LED Backlight Dimming Control	6	0.35	YE	6817	II	—
7	0.35	BK	1250	I	—	Ground	7	0.5	BK	1250	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X610 Passenger Door Trim Harness to Passenger Door Harness



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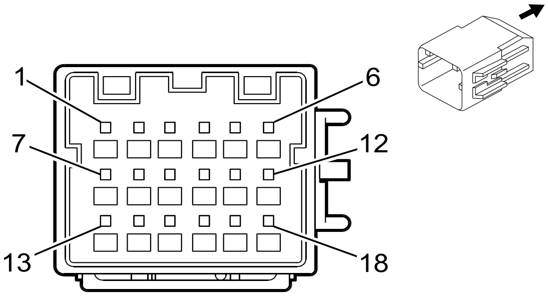


2907751

Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way F

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13888973
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way M 0.64 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-65B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

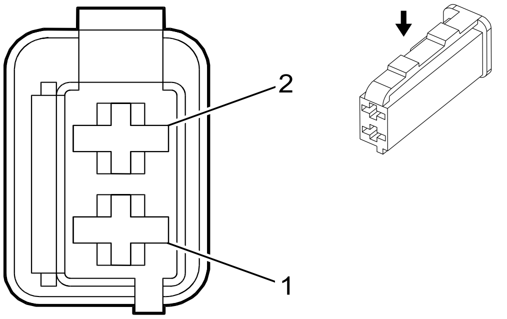
X610 Passenger Door Trim Harness to Passenger Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5 0.5	GY/BN GY/GN	309 5996	I I	— —	Right Park Lamp Control Driver Outside Rear View Mirror Puddle Lamp Control	1	0.5 0.5	GY/BN GY/GN	309 5996	II II	— —
2	0.5	WH/VT	1430	I	—	Exterior Courtesy Lamp Control	2	0.5	WH/VT	1430	II	—
3	0.35	BK/GN	3400	I	—	Passenger Mirror Position Sensor Low Reference	3	0.35	BK/GN	3400	II	—
4	0.5 0.5	GY/WH YE/GY	3411 3413	I I	— —	Driver Mirror Motor Fold Out Control Passenger Mirror Motor Fold Out Control	4	0.5 0.5	GY/WH YE/GY	3411 3413	II II	— —
5	0.5	BK	1250	I	—	Ground	5	0.5	BK	1250	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X610 Passenger Door Trim Harness to Passenger Door Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.35	VT/WH	3403	I	—	Passenger Mirror Position Sensor Left (-) Right (+) Signal	7	0.35	VT/WH	3403	II	—
8	0.5	BN/OG	2267	I	—	Mirror Heating Element Control	8	0.5	BN/OG	2267	II	—
9	0.5	YE/VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	9	0.5	YE/VT	3397	II	—
10	0.5	GN/BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	10	0.5	GN/BK	3396	II	—
11	0.5	BK	1250	I	—	Ground	11	0.5	BK	1250	II	—
12	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	12	0.5	WH	3398	II	—
13	0.5	GN/VT	1315	I	—	Right Front Turn Signal Lamp Control	13	0.5	GN/VT	1315	II	—
14	0.35	BU/YE	3401	I	—	Passenger Mirror Position Sensor Up (+) Down (-) Signal	14	0.35	BU/YE	3401	II	—
15	0.5	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	15	0.5	BU/GY	636	II	—
16	0.5	BK/BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	16	0.5	BK/BU	61	II	—
17	0.35	YE/RD	3399	I	—	Passenger Mirror Position Sensor 5V Reference	17	0.35	YE/RD	3399	II	—
18	0.5 0.5	WH/GN BU/GY	3412 3414	I I	— —	Driver Mirror Motor Fold In Control Passenger Mirror Motor Fold In Control	18	0.5 0.5	WH/GN BU/GY	3412 3414	II II	— —

X611 Outside Rearview Mirror Harness to Passenger Door Harness



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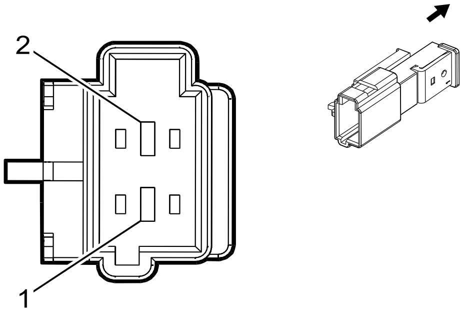


2339581

Connector Part Information

Harness Type: Outside Rearview Mirror
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13662506
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.6 Timer Series (BK)

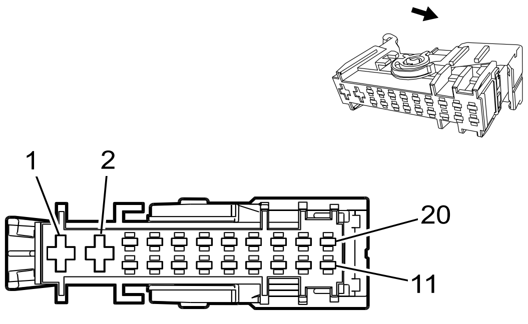
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-33 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-34 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X611 Outside Rearview Mirror Harness to Passenger Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	1	0.5	BU/ GY	636	II	—
2	0.5	BK/ BU	61	I	—	Outside Ambient Temperature Sensor Low Reference	2	0.5	BK/ BU	61	II	—

X700 Left Rear Door Harness to Body Harness



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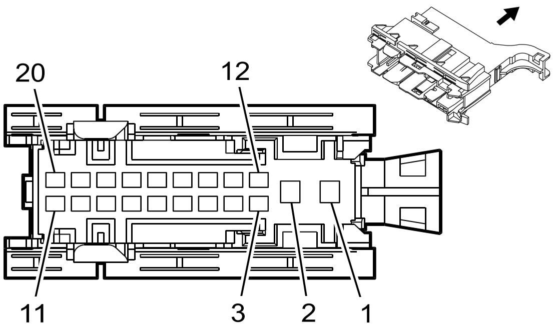


3621541

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 13600493
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 DSQ, 4.8 Timer Series (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 15539528
Service Connector: 19329469
Description: 20-Way M 1.5, 5.8 TTS Series (D-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13575556	J-35616-34 (YE)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13575706	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available
V	13575775	J-35616-34 (YE)	J-38125-560	Not Available	Not Available	Not Available	Not Available
VI	13575776	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	2
VII	13575776	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	C
VIII	13575857	J-35616-41 (BU)	J-38125-36	Not Available	Not Available	Not Available	Not Available

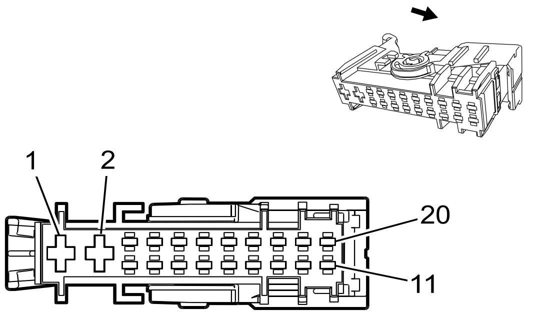
X700 Left Rear Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/ BU	1842	II	—	Battery Positive Voltage	1	2.5	RD/ BU	1842	VIII	—
2	3	BK	1150	II	—	Ground	2	4	BK	1150	IV	—
3 - 6	—	—	—	—	—	Not Occupied	3 - 6	—	—	—	—	—
7	1	GN	199	I	—	Left Rear Speaker Control (+) Left Rear Speaker Control (+)	7	0.5 1	GN GN	199 199	VI III	— —

X700 Left Rear Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.75	WH/BU	3266	I	—	Child Security Lock Motor Lock Control	9	0.75	WH/BU	3266	VII	—
10	0.75	BN/YE	294	I	—	Door Lock Actuator Unlock Control	10	0.75	BN/YE	294	VII	—
11	0.75	GY	295	I	—	Door Lock Actuator Lock Control	11	0.75	GY	295	VII	—
12 - 15	—	—	—	—	—	Not Occupied	12 - 15	—	—	—	—	—
16	1	GN/BK	116	I	—	Left Rear Speaker Signal (-)	16	0.5 1	GN/BK GN/BK	116 116	VI III	UQ3 (CREW CAB/ EXTENDED CAB +UQA/ UQG)/ (UTILITY +UQG/ UQS/UQH)
17	0.5	OG/BU	6620	I	—	Left Middle Side Impact Sensing Module Signal	17	0.35	OG/BU	6620	V	—
18	0.5	BK/OG	6621	I	—	Left Middle Side Impact Sensing Module Low Reference	18	0.35	BK/OG	6621	V	—
19	0.35	BN/WH	3269	I	—	Child Security Lock Motor Status Signal Left Rear	19	0.35	BN/WH	3269	V	—
20	0.5	GN/GY	6135	I	—	Local Interconnect Network Serial Data Bus 4	20	0.5	GN/GY	6135	VI	—

X800 Right Rear Door Harness to Body Harness



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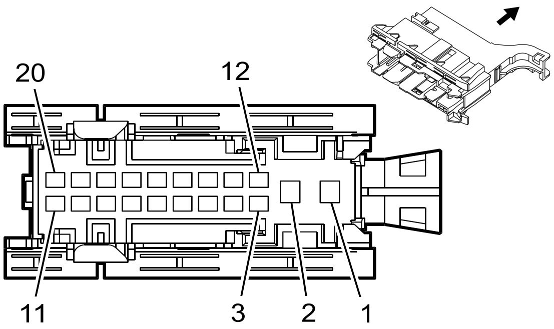


3621541

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 13600493
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 DSQ, 4.8 Timer Series (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 15539528
Service Connector: 19329469
Description: 20-Way M 1.5, 5.8 TTS Series (D-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13575556	J-35616-34 (YE)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IV	13575775	J-35616-34 (YE)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	13575776	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	2
VI	13575776	J-35616-34 (YE)	J-38125-560	964265-2	Lear 28	E	C
VII	13575857	J-35616-41 (BU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
VIII	13582220	J-35616-32 (OR)	J-38125-560	Not Available	Not Available	Not Available	Not Available

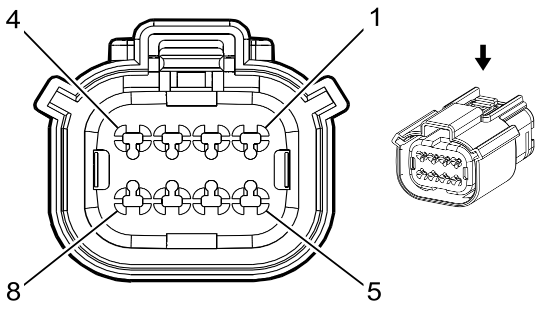
X800 Right Rear Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/WH	1340	II	—	Battery Positive Voltage	1	2.5	RD/WH	1340	VII	—
2	2.5	BK	1250	II	—	Ground	2	2.5	BK	1250	VIII	—
3 - 6	—	—	—	—	—	Not Occupied	3 - 6	—	—	—	—	—
7	1	WH	46	I	—	Right Rear Speaker Control (+) Right Rear Speaker Control (+)	7	0.5 1	WH WH	46 46	V III	— —

X800 Right Rear Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.75	WH/BU	3266	I	—	Child Security Lock Motor Lock Control	9	0.75	WH/BU	3266	VI	—
10	0.75	BN/YE	294	I	—	Door Lock Actuator Unlock Control	10	0.75	BN/YE	294	VI	—
11	0.75	GY	295	I	—	Door Lock Actuator Lock Control	11	0.75	GY	295	VI	—
12 - 15	—	—	—	—	—	Not Occupied	12 - 15	—	—	—	—	—
16	1	BU/BK	115	I	—	Right Rear Speaker Signal (-) Right Rear Speaker Signal (-)	16	0.5 1	BU/BK BU/BK	115 115	V III	— —
17	0.5	OG/VT	6624	I	—	Right Middle Side Impact Sensing Module Signal	17	0.35	OG/VT	6624	IV	—
18	0.5	BK/OG	6625	I	—	Right Middle Side Impact Sensing Module Low Reference	18	0.35	BK/OG	6625	IV	—
19	0.35	GY/BK	3268	I	—	Child Security Lock Motor Status Signal Right Rear	19	0.35	GY/BK	3268	IV	—
20	0.5	GN/GY	6135	I	—	Local Interconnect Network Serial Data Bus 4	20	0.5	GN/GY	6135	V	—

X900 Tailgate Harness to Chassis Harness



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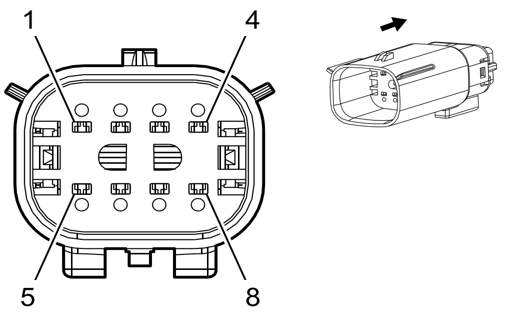


2667653

Connector Part Information

Harness Type: Tailgate
OEM Connector: 33160350
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15456955
Service Connector: 19300474
Description: 8-Way M 150 MX Series, Sealed (BK)

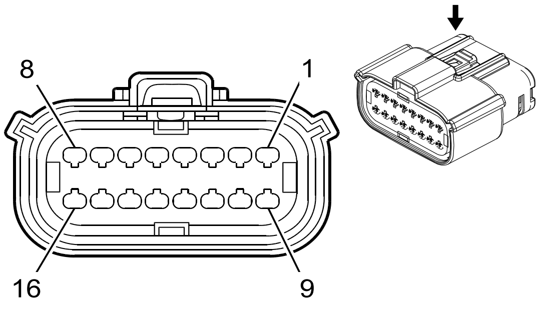
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X900 Tailgate Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GY	295	I	—	Door Lock Actuator Lock Control 2 Door Lock Actuator Lock Control	1	0.75 0.75	GY GY	5911 295	II II	— —
2	—	—	—	—	—	Backup Lamp Control	2	0.5	GN	24	II	—
3	—	—	—	—	—	Camera Signal 2 +	3	0.5	GY/ YE	6972	II	—
4	—	—	—	—	—	Run/Crank Ignition 1 Voltage	4	0.5	VT/ GN	1739	II	—
5	0.75	BN/ YE	294	I	—	Door Lock Actuator Unlock Control	5	0.75	BN/ YE	294	II	—
6	—	—	—	—	—	Camera Low Reference	6	0.5	BK	6974	II	—
7	—	—	—	—	—	Ground	7	0.5	BK	2550	II	—
8	—	—	—	—	—	Camera Signal 2	8	0.5	WH/ BU	6973	II	—

X901 Rear Fascia Harness to Chassis Harness (UD5/UD7)



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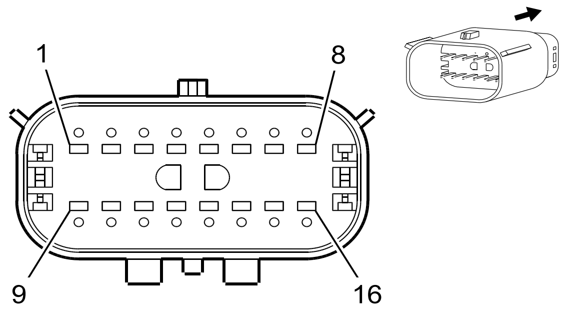


2548390

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33172362
Service Connector: 19300393
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

X901 Rear Fascia Harness to Chassis Harness (UD5/UD7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GY/BN	309	I	—	Right Park Lamp Control	1	0.75	GY/BN	309	II	—
2	0.75	VT/GY	709	I	—	Left Park Lamp Control	2	0.75	VT/GY	709	II	—
3	0.5	GN/YE	6846	I	—	Rear License Lamp Control Rear License Lamp Control	3	0.5 0.5	GN/YE GN/YE	6846 6846	II III	— —
3	0.5	GN/YE	6846	I	—	Rear License Lamp Control Rear License Lamp Control	3	0.5 0.5	GN/YE GN/YE	6846 6846	II III	— —
4	0.5	GN/YE	6846	I	—	Rear License Lamp Control Rear License Lamp Control	4	0.5 0.5	GN/YE GN/YE	6846 6846	II III	— —
4	0.5	GN/YE	6846	I	—	Rear License Lamp Control Rear License Lamp Control	4	0.5 0.5	GN/YE GN/YE	6846 6846	II III	— —
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—

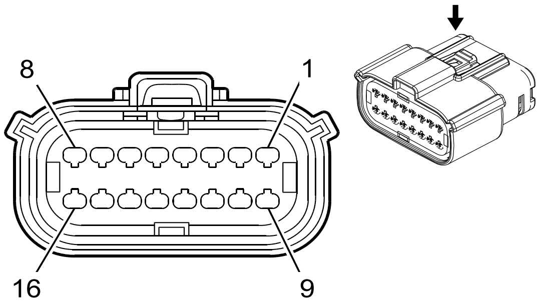
X901 Rear Fascia Harness to Chassis Harness (UD5/UD7) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	BK/GY	2379	I	—	Object Sensor Low Reference Object Sensor Low Reference	6	0.5 0.5	BK/GY BK/GY	2379 2379	II III	— —
6	0.5	BK/GY	2379	I	—	Object Sensor Low Reference Object Sensor Low Reference	6	0.5 0.5	BK/GY BK/GY	2379 2379	II III	— —
7	0.5	BN/WH	2374	I	—	Object Sensor Control Object Sensor Control	7	0.5 0.5	BN/WH BN/WH	2374 2374	II III	— —
7	0.5	BN/WH	2374	I	—	Object Sensor Control Object Sensor Control	7	0.5 0.5	BN/WH BN/WH	2374 2374	II III	— —
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal Left Rear Corner Object Sensor Signal	9	0.5 0.5	YE YE	2375 2375	II III	— —
9	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal Left Rear Corner Object Sensor Signal	9	0.5 0.5	YE YE	2375 2375	II III	— —
10	0.5	YE/BU	2376	I	—	Left Rear Middle Object Sensor Signal Left Rear Middle Object Sensor Signal	10	0.5 0.5	YE/BU YE/BU	2376 2376	III II	— —

X901 Rear Fascia Harness to Chassis Harness (UD5/UD7) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	YE/BU	2376	I	—	Left Rear Middle Object Sensor Signal Left Rear Middle Object Sensor Signal	10	0.5 0.5	YE/BU YE/BU	2376 2376	III II	— —
11	0.5	YE/RD	2377	I	—	Right Rear Middle Object Sensor Signal Right Rear Middle Object Sensor Signal	11	0.5 0.5	YE/RD YE/RD	2377 2377	III II	— —
11	0.5	YE/RD	2377	I	—	Right Rear Middle Object Sensor Signal Right Rear Middle Object Sensor Signal	11	0.5 0.5	YE/RD YE/RD	2377 2377	III II	— —
12	0.5	YE/VT	2378	I	—	Right Rear Corner Object Sensor Signal Right Rear Corner Object Sensor Signal	12	0.5 0.5	YE/VT YE/VT	2378 2378	II III	— —
12	0.5	YE/VT	2378	I	—	Right Rear Corner Object Sensor Signal Right Rear Corner Object Sensor Signal	12	0.5 0.5	YE/VT YE/VT	2378 2378	II III	— —
13	0.5	BK	1750	I	—	Ground Ground	13	0.5 0.5	BK BK	1750 1750	II III	— —
13	0.5	BK	1750	I	—	Ground Ground	13	0.5 0.5	BK BK	1750 1750	II III	— —
14	0.5	BK	1750	I	—	Ground Ground	14	0.5 0.5	BK BK	1750 1750	II III	— —
14	0.5	BK	1750	I	—	Ground Ground	14	0.5 0.5	BK BK	1750 1750	II III	— —
15	0.5	BK	1750	I	—	Ground	15	0.5	BK	1750	II	—
16	0.5	BK	1750	I	—	Ground	16	0.5	BK	1750	II	—

X901 Rear Fascia Harness to Chassis Harness (-UD5/UD7)



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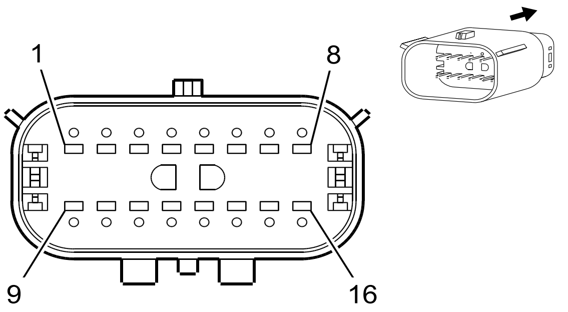


2548390

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 33177214
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33172365
Service Connector: 19300393
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

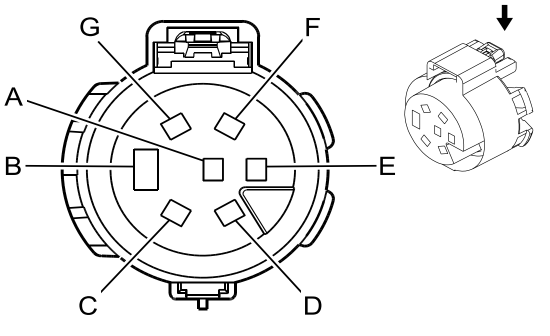
X901 Rear Fascia Harness to Chassis Harness (-UD5/UD7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/BN	309	I	—	Right Park Lamp Control	1	0.75	GY/BN	309	II	—
2	0.5	VT/GY	709	I	—	Left Park Lamp Control	2	0.75	VT/GY	709	II	—
3	0.5	GN/YE	6846	I	—	Rear License Lamp Control	3	0.5	GN/YE	6846	III	—
4	0.5	GN/YE	6846	I	—	Rear License Lamp Control	4	0.5	GN/YE	6846	III	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.5	BK/GY	2379	I	—	Object Sensor Low Reference	6	—	—	—	—	—
7	0.5	BN/WH	2374	I	—	Object Sensor Control	7	—	—	—	—	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X901 Rear Fascia Harness to Chassis Harness (-UD5/UD7) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal	9	—	—	—	—	—
10	0.5	YE/ BU	2376	I	—	Left Rear Middle Object Sensor Signal	10	—	—	—	—	—
11	0.5	YE/ WH	2377	I	—	Right Rear Middle Object Sensor Signal	11	—	—	—	—	—
12	0.5	YE/ VT	2378	I	—	Right Rear Corner Object Sensor Signal	12	—	—	—	—	—
13	0.5	BK	1750	I	—	Ground	13	0.5	BK	1750	III	—
14	0.5	BK	1750	I	—	Ground	14	0.5	BK	1750	III	—
15	0.5	BK	1750	I	—	Ground	15	0.5	BK	1750	III	—
16	0.5	BK	1750	I	—	Ground	16	0.5	BK	1750	III	—

X950 Chassis Harness to Backup Alarm Harness (8S3)



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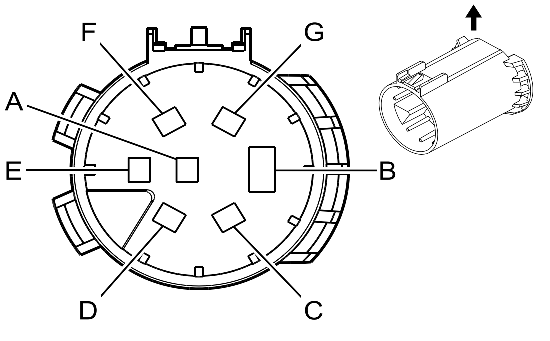


366087

Connector Part Information

Harness Type: Chassis
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F

Connector Part Information

Harness Type: Backup Alarm
OEM Connector: 15317327
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way M 280 Metri-Pack Series (BK)

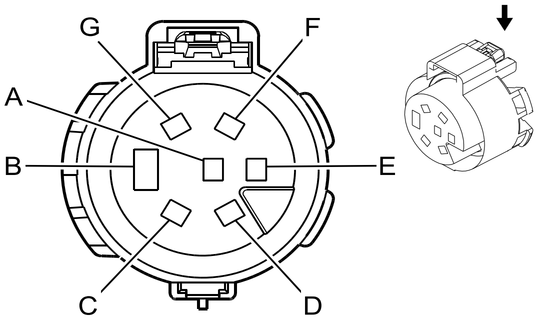
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X950 Chassis Harness to Backup Alarm Harness (8S3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
G	0.8	YE	1618	I	—	Left Rear Trailer Stop/ Turn Lamp Control	G	0.8	YE	1618	III	—
F	1	BN	2109	I	—	Trailer Park Lamp Control	F	1	BN	2109	III	—
E	3	RD/ BK	742	I	—	Battery Positive Voltage	E	3	RD/ BK	742	III	—
D	0.8	GN	1619	I	—	Right Rear Trailer Stop/ Turn Lamp Control	D	0.8	GN	1619	III	—
C	3	BU	47	I	—	Trailer Auxiliary Control	C	3	BU	47	III	—
B	5	WH	22	I	—	Trailer Ground	B	5	WH	22	II	—
A	1	GN	1624	I	—	Trailer Backup Lamp Control	A	1	GN	1624	III	—

X950 Chassis Harness to Camper Harness (UY2)



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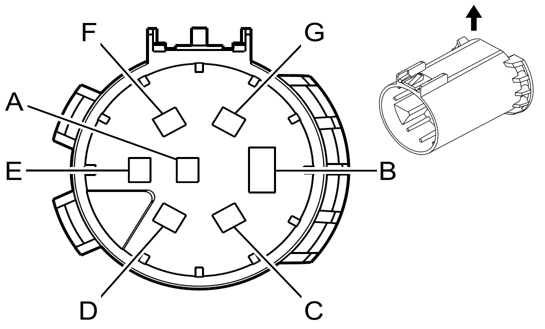


366087

Connector Part Information

Harness Type: Chassis
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F

Connector Part Information

Harness Type: Camper
OEM Connector: 15317327
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way M 280 Metri-Pack Series (BK)

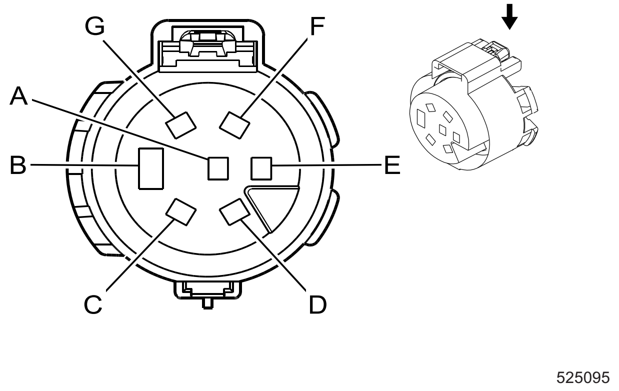
Terminal Part Information

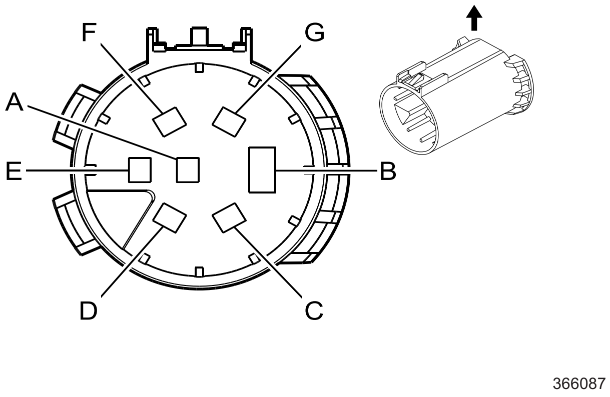
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X950 Chassis Harness to Camper Harness (UY2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
G	0.75	YE/ GY	1618	I	—	Left Rear Trailer Stop/ Turn Lamp Control	G	0.75	YE/ GY	1618	III	—
F	1.5	GY/ BN	2109	I	—	Trailer Park Lamp Control	F	1.5	GY/ BN	2109	III	—
E	4	RD/ GN	742	I	—	Battery Positive Voltage	E	4	RD/ GN	742	III	—
D	0.75	GN/ VT	1619	I	—	Right Rear Trailer Stop/ Turn Lamp Control	D	0.75	GN/ VT	1619	III	—
C	4	BU	47	I	—	Trailer Auxiliary Control	C	4	BU	47	III	—
B	6	WH	22	I	—	Trailer Ground	B	6	WH	22	II	—
A	0.75	WH/ GN	1624	I	—	Trailer Backup Lamp Control	A	0.75	WH/ GN	1624	III	—

X950 Chassis Harness to Camper Harness (Z6A)





Connector Part Information

Harness Type: Chassis
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F

Connector Part Information

Harness Type: Camper
OEM Connector: 15317327
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way M 280 Metri-Pack Series (BK)

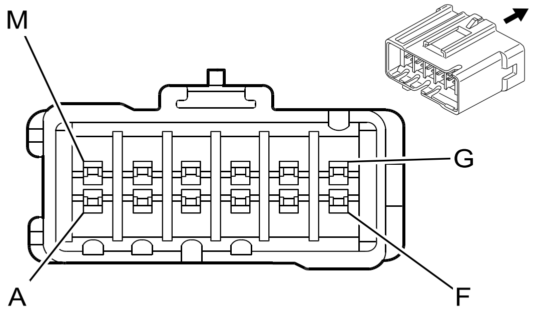
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X950 Chassis Harness to Camper Harness (Z6A)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
G	0.75	YE/ GY	1618	I	—	Left Rear Trailer Stop/ Turn Lamp Control	G	0.75	YE/ GY	1618	III	—
F	1.5	GY/ BN	2109	I	—	Trailer Park Lamp Control	F	1.5	GY/ BN	2109	III	—
E	4	RD/ GN	742	I	—	Battery Positive Voltage	E	4	RD/ GN	742	III	—
D	0.75	GN/ VT	1619	I	—	Right Rear Trailer Stop/ Turn Lamp Control	D	0.75	GN/ VT	1619	III	—
C	4	BU	47	I	—	Trailer Auxiliary Control	C	4	BU	47	III	—
B	6	WH	22	I	—	Trailer Ground	B	6	WH	22	II	—
A	0.75	WH/ GN	1624	I	—	Trailer Backup Lamp Control	A	0.75	WH/ GN	1624	III	—

JX200 Splice Pack (E29)



831366

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305291
Service Connector: 15305291
Description: 12-Way F 280 Metri-Pack Series (BK)

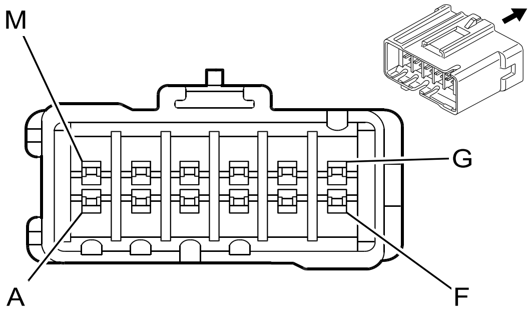
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	4
II	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	A

JX200 Splice Pack (E29)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
B - D	—	—	—	Not Occupied	—	—
E	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
F - H	—	—	—	Not Occupied	—	—
J	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
K	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
L	—	—	—	Not Occupied	—	—
M	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—

JX200 Splice Pack (-E29)



831366

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305291
Service Connector: 15305291
Description: 12-Way F 280 Metri-Pack Series (BK)

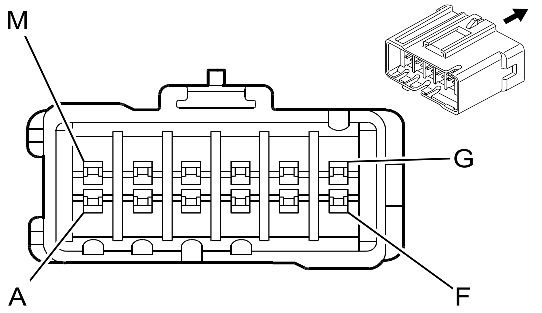
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	4
II	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	A

JX200 Splice Pack (-E29)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
B - D	—	—	—	Not Occupied	—	—
E	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
F - H	—	—	—	Not Occupied	—	—
J	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
K	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
L	—	—	—	Not Occupied	—	—
M	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—

JX300 Splice Pack



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Connector Part Information

Harness Type: Body
OEM Connector: 15305291
Service Connector: 15305291
Description: 12-Way F 280 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	4
II	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	A

JX300 Splice Pack

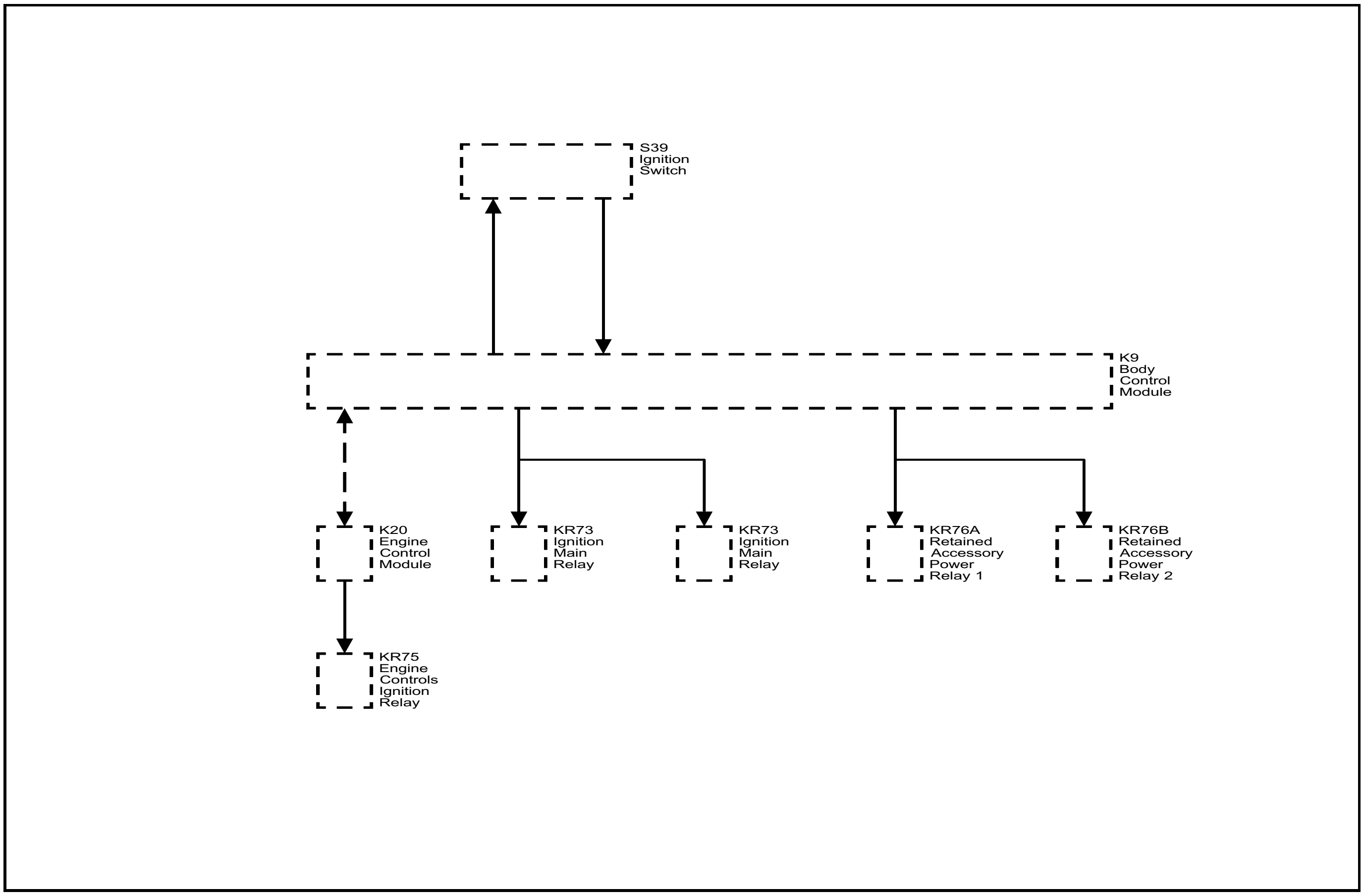
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
E	—	—	—	Not Occupied	—	—
F	0.5 0.35	GN GN	5060 5060	Low Speed GMLAN Serial Data Low Speed GMLAN Serial Data	II I	HP5 -HP5
G - H	—	—	—	Not Occupied	—	—
J	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
K	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
L	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
M	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—

Description and Operation

Power Mode Description and Operation

Serial Data Power Mode Master

Power Moding Description and Operation Block Diagram


S39 Ignition Switch
K9 Body Control Module
K20 Engine Control Module
KR73 Ignition Main Relay
KR73 Ignition Main Relay
KR76A Retained Accessory Power Relay 1
KR76B Retained Accessory Power Relay 2
KR75 Engine Controls Ignition Relay

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Power to many of this vehicles circuits is controlled by the module that is designated the power mode master. This vehicles power mode master is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is useful to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the power mode master for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The power mode master will also activate relays and other direct outputs of the power mode master as needed. The power mode master determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the power mode serial data message does not match what the individual module can see from its own connections.

The power mode master receives ignition switch signals to identify the operators desired power mode. The Power Mode Parameter tables below illustrate the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off/Run/Crank (Off/Run Crank Voltage Circuit)	Ignition Accessory/Run (Accessory Voltage Circuit)	Ignition Run/Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out / ACC	Inactive	Inactive

Power Mode Parameters (cont'd)

Ignition Switch Position	Power Mode Transmitted	Ign. Off/Run/Crank (Off/Run Crank Voltage Circuit)	Ignition Accessory/Run (Accessory Voltage Circuit)	Ignition Run/Crank (Ignition 1 Voltage Circuit)
Off Key IN	Off	Key In / Off	Inactive	Inactive
Accessory	Accessory	Key Out / ACC	Active	Inactive
Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The BCM uses the discrete ignition switch inputs Off/Run/Crank Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay 1 and retained accessory power relay 2 remain on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 5-919* for more information on the retained accessory power function.

Battery Saver Mode (Transport Mode)

Battery saver mode (transport mode) reduces the parasitic load of some modules during overseas shipment or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When a vehicle is in transport/storage, some features may have reduced functionality while in the battery saver mode, such as disabling keyless entry, afterblow, and content theft features. Battery saver mode is initiated by turning on the hazard flashers, applying the brake pedal, and then turning the ignition key to the start position or pushing the ignition mode switch with the foot on the brake for greater than 15 seconds. The mode is disengaged by repeating the previous process. The driver information center (if equipped) will display Transport Mode is On when battery saver mode is enabled and Transport Mode is Off when battery saver mode is disabled. For vehicles not equipped with a driver information center, the battery indicator light will constantly flash on the Instrument Cluster when battery saver mode is enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

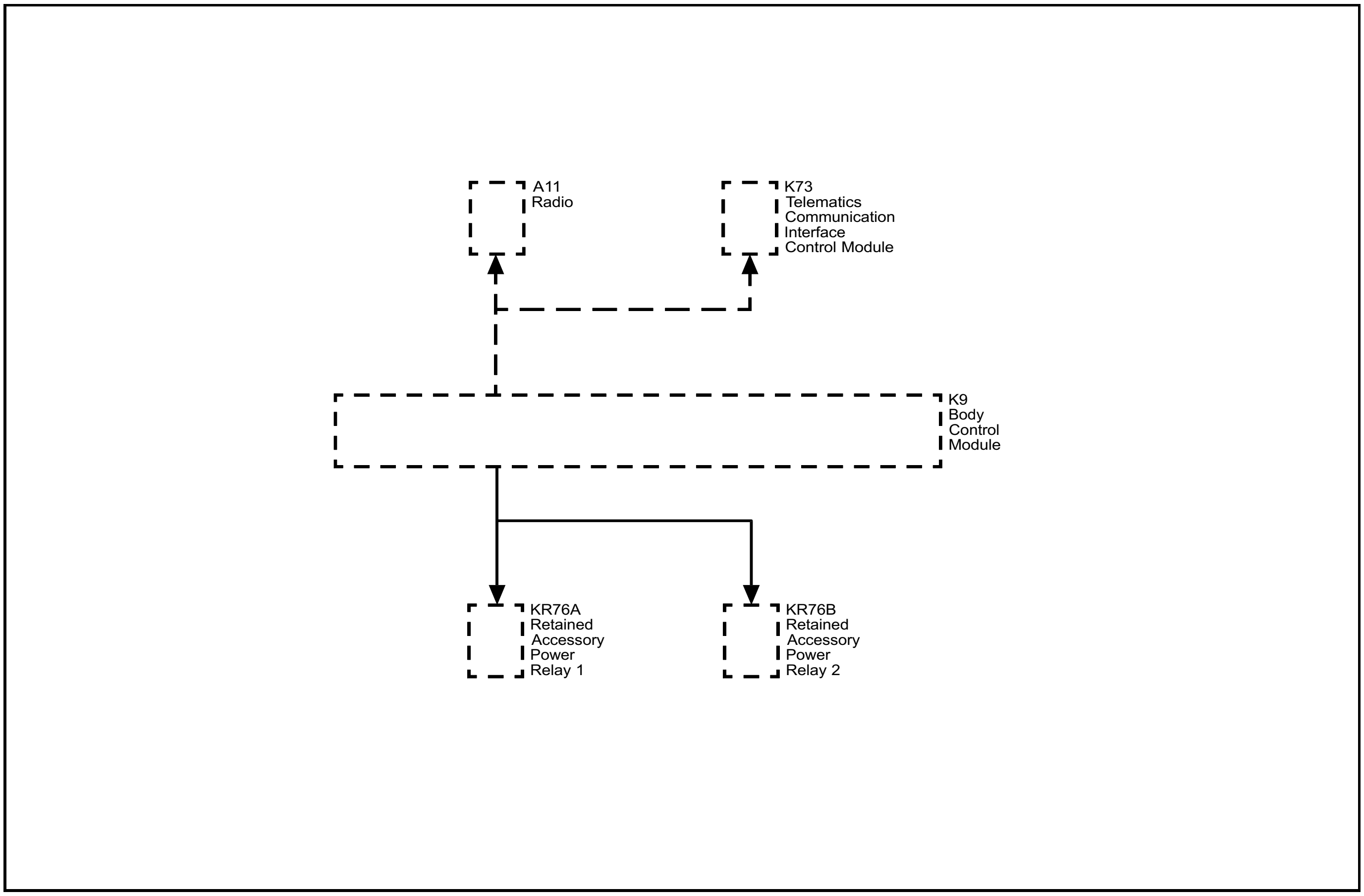
- The ignition switch is OFF, key out.
- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation

Retained Accessory Power

RAP Description and Operation Block Diagram



The body control module (BCM) monitors the ignition switch position, battery condition, and each door ajar/open switch status to determine whether the retained accessory power should be initiated or terminated. Retained accessory power is controlled by two different methods; relay control and serial data. Some modules receive a retained accessory power message from the BCM over the serial data circuits. Serial data controlled retained accessory power is deactivated as required by their modules retained accessory power mode operation. Other subsystems are activated directly by the BCM through a relay. Components and systems that are active in retained accessory power are also activated anytime the ignition is any position other than OFF regardless of the door switch signals.

Relay Controlled Retained Accessory Power

The BCM keeps the retained accessory power relay 1 and retained accessory power relay 2 energized during all power modes, except Off-Awake and Crank. The retained accessory power relay 1 and retained accessory power relay 2 are also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled retained accessory power will end when one of the following conditions is met:

- The BCM receives an input from any door ajar or open switch indicating the opening of any door after the ignition key is out of the ignition.

  Note: If the BCM is receiving any door ajar or open signal from those switches when the ignition key is turned OFF, retained accessory power will not initiate.

- The BCM internal timer for the retained accessory power expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

Systems powered by the retained accessory power relay 1 and retained accessory power relay 2 during the retained accessory power mode are as follows:

Note: The vehicle may not be equipped with all components as listed below.

- Accessory Power Receptacle
- Cigarette Lighter Receptacle
- Sunroof Control Module
- Sunroof Switch

- Sliding Rear Window Switch
- Mobile Device Wireless Charger Module

Serial Data Controlled Retained Accessory Power

Retained accessory power systems controlled by serial data are as follows:

Radio

Radio retained accessory power activation / termination is the same as relay operation with one exception; the only door switch that will turn off the radio during retained accessory power is the driver door open switch.

Vehicle Communication Interface Module (VCIM) (Onstar®) (If Equipped)

VCIM RAP activation/termination is the same as radio operation with 1 exception; if there is an active call when the ignition key is turned off the VCIM will remain in RAP mode, and keep the radio in RAP mode until the call is terminated.

Section 6

Transmission

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    Power Take-Off (PTO) Schematics 6-4
  Description and Operation 6-6
    Power Take-Off (PTO) Description and Operation 6-6
Shift Lock Control 6-12
  Schematic and Routing Diagrams 6-12
    Shift Lock Control Schematics 6-13
  Description and Operation 6-14
    Automatic Transmission Shift Lock Control Description and Operation (Without T4Z) 6-14
    Automatic Transmission Shift Lock Control Description and Operation (With T4Z) 6-14

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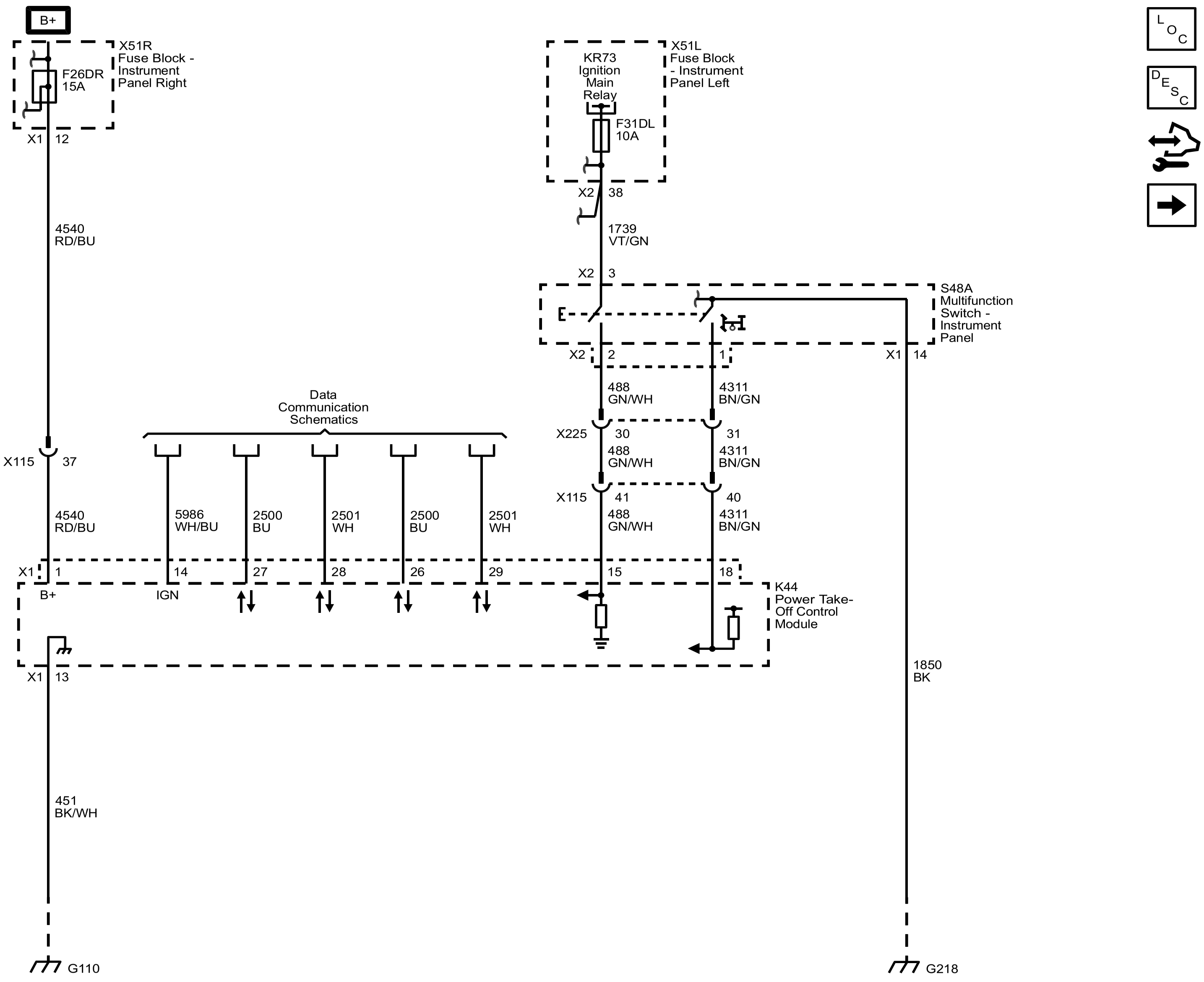
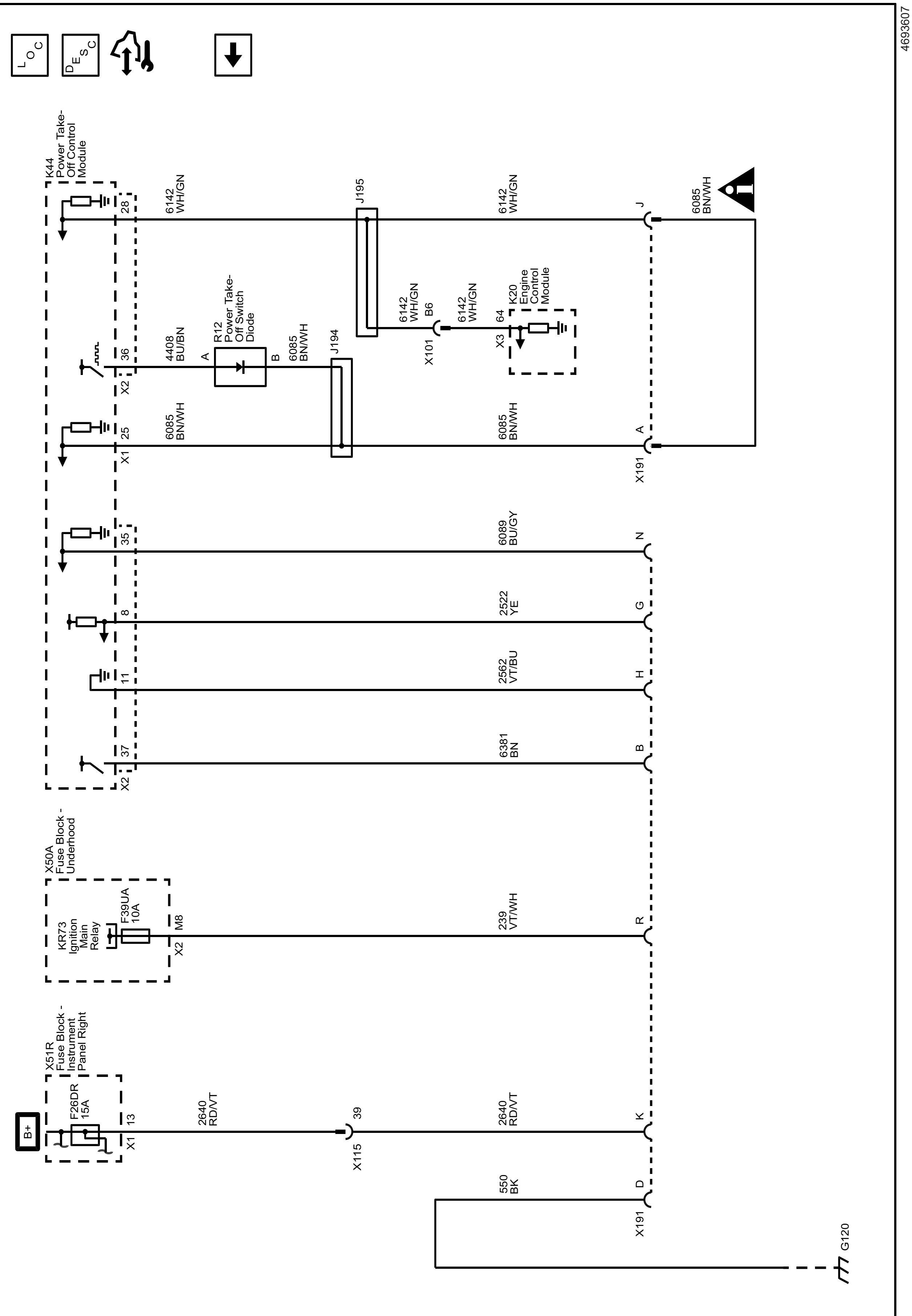
Power Take-Off

Schematic and Routing Diagrams

Power Take-Off (PTO) Schematics (Power, Ground, Serial Data and Enable)


B+
X51R
Fuse Block -
Instrument
Panel Right
F26DR
15A
X1 12
4540
RD/BU
X115 37
4540
RD/BU
X1 1
B+
X1 13
451
BK/WH
G110
X51L
Fuse Block
- Instrument
Panel Left
KR73
Ignition
Main
Relay
F31DL
10A
X2 38
1739
VT/GN
X2 3
S48A
Multifunction
Switch -
Instrument
Panel
X2 2
1
X1 14
488
GN/WH
4311
BN/GN
X225 30
31
488
GN/WH
4311
BN/GN
X115 41
40
488
GN/WH
4311
BN/GN
15
18
K44
Power Take-
Off Control
Module
1850
BK
G218
Data
Communication
Schematics
5986
WH/BU
2500
BU
2501
WH
2500
BU
2501
WH
14
IGN
27
28
26
29
4693605

Power Take-Off (PTO) Schematics (Provisional Connector)


4693607
L O C
D E S C
B+
X51R Fuse Block - Instrument Panel Right
F26DR 15A
X1 13
2640 RD/VT
X115 39
2640 RD/VT
K
550 BK
D
X191
G120
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
F39UA 10A
X2 M8
239 VT/WH
R
K44 Power Take-Off Control Module
X2 37
6381 BN
B
11
2562 VT/BU
H
8
2522 YE
G
35
6089 BU/GY
N
X1 25
6085 BN/WH
6085 BN/WH
A
X191
X2 36
4408 BU/BN
A
R12 Power Take-Off Switch Diode
B
6085 BN/WH
J194
28
6142 WH/GN
J195
6142 WH/GN
B6
X101
6142 WH/GN
X3 64
K20 Engine Control Module
6142 WH/GN
J
6085 BN/WH

Description and Operation

Power Take-Off (PTO) Description and Operation

The power take-off (PTO) is an upfitter integrated system that allows the user to create an auxiliary power source. The PTO system specifically controls engine speed to values higher than normal base idle, PTO load relay engagement, and remote starting and shutdown of the engine. When the operator requests PTO, the PTO switch will be turned ON and the engine RPM will go to a default standby speed.

The PTO system utilizes the following:

- The transmission driven PTO gear
- The in-cab PTO switch and cruise control SET – and RES + switches
- The PTO telltale indicator
- The power take off module (PTOM)
- The remote PTO upfitter connector

Note: For specific information on how to set up and operate the Power Take Off system refer to the vehicle Duramax Diesel supplement manual and the GM Upfitter website.

Factory Installed PTO Components

The in-cab PTO switch and cruise control SET – and RES + switches

The PTO switch is a part of the switch bank and is mounted in the right side of the center instrument panel. The PTO switch is a two position momentary switch with two states: ON/OFF. When the PTO switch is pressed and released to the ON position, the PTO relay will be energized by the PTOM. The cruise control SET – and RES + switches are used to control PTO desired speed. Note that the cruise control ON/OFF switch shall be set to OFF for PTO to operate.

PTO Telltale Indicator

The PTO telltale indicator is a part of the DIC message center. The PTOM shall command the state of the PTO telltale via instrument panel displays based on the following criteria:

- The telltale will illuminate, flashing at a 0.5 second interval rate when the PTO relay is energized. The indicator illuminates solid once the PTO load feedback signal confirms the load has been engaged or after 2 seconds if load feedback is not utilized by the PTO system.
- The telltale will flash at a 1 second interval rate when PTO memory speed is retained. Depressing the in-cab PTO switch to the OFF position turns the PTO system off. The PTO telltale will turn off once engine speed reaches base engine idle, at which time the PTO relay is de-energized.

Power Take-Off Module (PTOM)

- Processes PTO operator switch inputs and translates these inputs into an engine speed request to the ECM
- Controls the engagement of the PTO load relay
- Process requests to the BCM and ECM to start and shutdown the engine
- Requests the IPC to display on the DIC the actions the driver must take to enable PTO
- Requests the ECM to command an engine shutdown and engine shutdown horn warning for critical engine and transition conditions (stationary remote PTO only).

The PTOM constantly looks at the information from various sensors and other inputs, and controls the systems that affect vehicle performance. If any of the PTO engage conditions for the specific operating mode are no longer valid, the engine controller will exit out of PTO mode.

Remote PTO Upfitter Connector

The PTO upfitter connector provides access to all remote PTO functions. The connector is located on the right-hand outside frame rail, underneath the passenger side door. Electrical connections to the following components are provided by this connector. The upfitter connector pin circuits (other than battery, ignition and ground) are disabled as the vehicle is received from the factory. The PTO module must be reprogrammed by the upfitter or dealer to enable the following circuits:

- PTO remote engine arm
- PTO remote engine shutdown/start
- PTO remote set/variable speed potentiometer
- PTO lead feedback

Other Vehicle Modules

The PTO system also utilizes the following vehicle modules, which communicate over the serial data system:

- The body control module (BCM)
- The engine control module (ECM)
- The instrument panel cluster (IPC)
- The transmission control module (TCM)
- The electronic brake control module (EBCM)

Body Control Module (BCM)

The BCM maintains the PTO factory default mode, unless it is reprogrammed with a scan tool to change the PTO configuration mode. The BCM also controls the remote start/shutdown function.

Engine Control Module (ECM)

The ECM controls the engine speed and the engine starting based on messages from the PTOM through serial data. The ECM also provides PTO specific engine information to the PTOM through serial data messages.

Electronic Brake Control Module

The EBCM monitors the vehicle speed. The PTOM receives the status of the vehicle speed from the EBCM via serial data messages.

Instrument Panel Cluster (IPC)

The driver information center (DIC) of the IPC displays actions the driver must take in order to engage PTO. If the PTO will not engage, one or more of the following DIC messages may appear on the instrument panel cluster (IPC):

Stationary PTO	Mobile PTO
PTO: REDUCE VEHICLE SPEED	PTO: DISENGAGE CRUISE CONTROL
PTO: RELEASE BRAKE	PTO: REDUCE ENGINE SPEED
PTO: SET PARK BRAKE	PTO: RELEASE BRAKE
PTO: REDUCE ENGINE SPEED	PTO: PRESS and RELEASE BRAKE
PTO: SHIFT TO P OR N	PTO: REDUCE VEHICLE SPEED
PTO: DISENGAGE CRUISE CONTROL	—

Transmission Control Module (TCM)

The TCM adjusts shift patterns to minimize shifting during PTO operation. The TCM also provides transmission gear states and temperature conditions to the PTOM via serial data messages.

Electronic Brake Control Module (EBCM)

The EBCM disables the PTO if wheel speed pulses are larger than calibratable values. The EBCM also disengages the PTO during a traction control event.

PTO Enable Conditions

Stationary PTO

The following conditions must be met in order to engage stationary PTO:

- The engine must be running.
- The vehicle cannot be moving and the parking brake must be set.
- The shift lever must be in PARK (P) or NEUTRAL (N).
- The brake pedal must not be pressed.
- Cruise control must be OFF.

In-cab PTO operation: Press and release the in–cab PTO switch to the ON position. The PTO telltale indicator will flash fast until the PTO load becomes engaged. When the load becomes engaged, the telltale indicator will stop flashing and stay illuminated. The cruise control SET – and RES + switch positions can then be used to establish the desired PTO operating speed.

Remote PTO operation: Press and release the PTO remote arm switch, then within five seconds, press and release the PTO remote engine start/shutdown switch. The remote PTO indicator light will illuminate when the PTO load is engaged. The PTO remote SET or PTO remote variable speed switches can then be used to establish the desired PTO operating speed. These switches are accessed through the PTO upfitter connector, located under the passenger side door.

Mobile PTO

The following conditions must be met prior to engaging mobile PTO:

- The engine must be running.
- The vehicle speed must be less than the PTO top vehicle speed limit. The default setting is 94 km/h (58 mph). This limit can be adjusted.
- The shift lever must be in M1, M2 or M3.
- The brake must be pressed and then released. The brake must then remain released.
- Cruise control must be OFF.
- Engine speed must be less than the maximum allowed PTO engage speed of 1500 RPM.

Press and release the PTO in-cab switch to the ON position. The PTO telltale will flash fast until the PTO load becomes engaged. When the load becomes engaged, the telltale will stop flashing and stay illuminated. The SET – and RES + switches can then be used to establish the desired PTO operating speed.

PTO Disengage Conditions

Stationary PTO

The stationary PTO mode will disengage if any of the following conditions are detected by the vehicle modules:

- Vehicle movement
- The park brake is released
- The transmission is shifted from PARK (P) to DRIVE (D) or REVERSE (R).
- The PTO load becomes disengaged
- A press and release of the PTO in–cab switch to the OFF position.
- A press and release of the PTO remote engine start/shutdown switch (stationary remote PTO only).
- A press and release of the PTO E-STOP switch (stationary remote PTO only).

Mobile PTO

The mobile PTO mode will also disengage if the following conditions are detected by the vehicle modules:

- A press of the brake pedal
- Vehicle speed exceeds 94 km/h (58 mph)
- Engine speed exceeds the maximum allowed PTO operating speed of 2100 RPM
- The PTO load becomes disengaged
- A press and release of the PTO in–cab switch to the OFF position

The PTO control system will attempt to limit accelerator pedal and PTO switch input as the vehicle approaches the above operational limits. There are some vehicle conditions, such as down hill acceleration, which may cause vehicle speed or engine speed limits to be exceeded. Under those conditions, PTO is disengaged.

Modes of Operation

Preset PTO Mode

Preset PTO can only be used when the vehicle is not moving. The engine speed is initially set to a standby engine speed of 900 RPM. This provides an initial start-up engine speed to match the engagement of the PTO load. The PTO standby engine speed can be reprogrammed to higher speeds.

Choose one of two presets by pressing and releasing the cruise control SET – /RES + or PTO remote set switches:

- Speed 1: Pressing the cruise control SET — or PTO Remote Set 1 switch results in a preset speed of 1200 RPM.
- Speed 2: Pressing the cruise control RES + or PTO Remote Set 2 switch results in a preset speed of 1900 RPM

Pressing and releasing the PTO in-cab switch or PTO remote engine start/shutdown switch to the OFF position results in the return of the engine speed back to normal idle. The PTO load relay is also disengaged.

Maximum PTO Operating Speed: To protect the PTO from overspeed, the PTO system will disengage when the engine speed exceeds 3100 RPM.

The Stationary PTO Mode provides both in-cab and remote controls. The in-cab controls are enabled as the factory preset. The remote controls are disabled. This factory preset configuration can be reprogrammed to enable the remote controls, and disable the in-cab PTO controls.

Note: DO NOT enable/activate PTO during service (hoist) conditions at any time

Variable PTO Mode

In this mode, the vehicle can be programmed for stationary or mobile operation.

The variable PTO mode controls engine speed and PTO load engagement and is selected by either the PTO in-cab or remote switches. Engine speed selection is variable between base engine idle speed and a maximum of 3100 RPM.

In the mobile PTO mode, the vehicle will operate at a vehicle speed resulting from the current PTO engine speed request and current transmission gear range selected.

Vehicle speed stability is greatly improved by shifting into the transmission manual mode because upshifts are limited. This reduces the maximum vehicle speed while allowing high engine speed operation. Therefore, low vehicle speed operation, 16–40 km/h (10–25 mph) and high PTO engine speed 1500–2000 RPM can be achieved in the manual mode 1 and 2 transmission ranges.

In-cab PTO Switch Operation:

- ON: Press and release the PTO in-cab switch to the ON position to engage PTO. The PTOM will increase the engine speed to the factory preset engine speed. The initial standby speed can be adjusted by holding the accelerator to the desired engine speed, then pressing and releasing the ON switch. The current engine speed will become the new standby speed. This adjustment can only be done once at the initial engagement of the PTO, and the initial standby speed adjustment must be between the engine base idle speed and the maximum PTO engine speed.
- OFF: Press and release the PTO in-cab switch to the OFF position to disengage PTO. The engine speed will return to the base idle speed and the PTO load relay will be disengaged.

Cruise Control SET– and RES+ Switch Operation:

- SET —: Press and hold the accelerator to obtain the desired engine speed, then press and release the SET – switch. The current engine speed will be maintained. This action can be repeated as desired to a higher RPM value. The PTO set speed cannot exceed 3100 RPM.
  - – Tap Down: Press and release the SET – switch to reduce the engine speed by increments of 100 RPM.
  - – Coast: Press and hold the SET – switch to reduce the RPM by 150 RPM per second until the desired engine speed is reached or until the initial PTO standby speed is reached.
- RES +: When a PTO set speed has been achieved, press and release the brake pedal. Engine speed will return to normal idle speed. The PTO telltale will flash slowly indicating the previous PTO set speed has been retained in memory. Press and release the RES + to resume the previous PTO set speed. The PTO set speed cannot exceed 3100 RPM.
  - – Tap Up: Press and release the RES + to increase the engine speed by increments of 100 RPM.
  - – Accelerate: Press and hold the RES + to increase the RPM by 150 RPM per second until the desired engine speed is reached or until the maximum allowable PTO set speed is reached.

PTO State	Applied Switch	Short Apply	Long Apply
PTO STANDBY ENABLED	RES +	Tap Up (Engaged)	Accelerate (Engaged)
PTO STANDBY ENABLED	SET −	Engaged	Engaged
PTO ENGAGED (RPM already higher than standby)	SET –	Tap Down	Coast
PTO ENGAGED (RPM already lower than maximum speed)	RES +	Tap Up	Accelerate
STANDBY DISABLED with no memory speed	RES +	No Action	No Action
STANDBY DISABLED with a memory speed	RES +	Resume	Resume
STANDBY ENABLED with no memory speed	RES +	Tap Up (Engaged)	Resume
STANDBY ENABLED with a memory speed	RES +	Resume	Resume

Remote Engine Start Control

The PTO system allows the engine to be remotely started while operating in the stationary PTO mode. The wiring system provides for connections to a remote engine start arming switch and remote start/shutdownn switch. These connections are accessed through the upfitter connector.

The remote start function is initiated by a sequence of switch actions, in addition to several vehicle conditions. The following conditions must be met before attempting to remote start the engine. The vehicle ignition key can be in any position or removed from the ignition:

- The vehicle must be configured for stationary PTO operation.
- The parking brake must be set.
- The transmission must be in PARK (P).
- The hood must be closed.

Once the above conditions are met, to continue with the remote start, use the remote PTO controls to do the following:

1. Press and release the PTO remote arm switch.
2. Within five seconds of releasing the PTO remote arm switch, press and release the PTO remote engine start/shutdown switch until the engine starts.

The PTO system will then elevate engine RPM to standby speed and engage the PTO load. Use the PTO remote set or PTO remote variable speed switches (based on configuration) to elevate PTO speed to the desired engine operating speed.

Remote Engine Shutdown Control

The PTO system allows for remote engine shutdown while operating in the stationary PTO mode. This feature has the following functions:

- Engine shutdown using the operator remote switch: The vehicle wiring system provides remote engine shutdown switch connections, which can be accessed through the PTO upfitter connector.
- Timed auto-engine shutdown: The timed auto-engine shutdown feature provides the means to shut down the engine automatically after a predefined time. PTO must be operational for this function to be active.
- Engine shutdown based on critical engine conditions: The engine can be shutdown when PTO is operating if a critical engine condition is detected by the vehicle system (i.e., low oil, low oil pressure, hot engine, hot transmission, low fuel).
- Emergency engine shutdown: The vehicle wiring system supports remote Emergency engine shutdown via application of the E-STOP switch located at the external (upfitter's) panel accessible through the PTO upfitter connector. (e.g. when PTO relay is stuck closed in Stationary Remote mode, operator shall activate E—STOP switch to shutdown engine and allow engine to be restarted at the next ignition cycle without PTO system activation.

PTO Factory Default Settings

Power Take-Off (PTO) Description and Operation

Function	Value/Default Setting	Scan Tool/HMI Customization Menu
PTO Option	None Preset (Default) Variable Mobile	Scan Tool
PTO In-Cab Control	Enabled Disabled	Scan Tool
PTO Remote Control Status	Enabled Disabled (Default)	Scan Tool
PTO Ramp Rate	4 – 150 RPM/sec	Scan Tool
PTO Set 1 Speed	500 – 3100 RPM 1200 RPM (default)	HMI Customization Display/Scan Tool
PTO Set 2 Speed	500 – 3100 RPM 1900 RPM (default)	HMI Customization Display/Scan Tool
PTO Relay	Yes (default) No	Scan Tool
PTO Feedback	Yes (default) No	Scan Tool
Fuel Level for Engine Shutdown	0 – 25% fuel level 15% fuel level	Scan Tool

Power Take-Off (PTO) Description and Operation (cont'd)

Function	Value/Default Setting	Scan Tool/HMI Customization Menu
PTO to Set 1 Speed	Yes No (default)	Scan Tool
PTO Remote Engine Start	Yes No (default)	Scan Tool
PTO Remote Set Switch	Yes No (default)	Scan Tool
PTO Remote Set Switch Type	Momentary (default) Latching	Scan Tool
PTO Remote Engine Shutdown	Yes No (default)	Scan Tool
Remote Set Switch Low = (less than 33% of Ignition voltage)	PTO Standby Set 1 (default) Set 2	Scan Tool
Remote Set Switch High + (33% to 66% of Ignition voltage)	PTO Standby Set 1 Set 2 (default)	Scan Tool
Remote Set Switch Open = (greater than 66% ignition voltage)	PTO Standby Set 1 (default) Set 2	Scan Tool
PTO Maximum Engage Speed	0 – 1500 RPM 1500 RPM (default)	Scan Tool
PTO Maximum Engine Speed	500 — 3100 RPM 2100 RPM (default)	Scan Tool
PTO Standby Speed	500 — 1500 RPM 900 RPM (default)	HMI Customization Display/Scan Tool
Engine Run Timer	0 — 1320 minutes	HMI Customization Display/Scan Tool
Chirp Before Start	Enabled (default) Disabled	Scan Tool
PTO Tap Step	4 – 500 RPM/Step 100 RPM/Step (default)	HMI Customization Display/Scan Tool
Brake Release Action	Standby Idle Speed (default)	Scan Tool
Remote PTO Variable Speed Switch	Yes No (default)	Scan Tool
PTO ON During Braking	Yes (default) No	Scan Tool
Maximum Vehicle Speed	30 kph (19 mph) to 94 kph (58 mph) 94 kph ((58 mph) (default)	Scan Tool
PTO Minimum Remote Variable Speed	0 – 50% 2% (default)	Scan Tool
PTO Maximum Remote Variable Speed	50 – 100% 95% (default)	Scan Tool
Engine Shutdown Enable	Yes No (default)	Scan Tool
PTO Accelerator Lockout	Enabled Disabled (default)	Scan Tool

Reprogramming the PTOM for Fast Idle/ PTO Using the Scan Tool

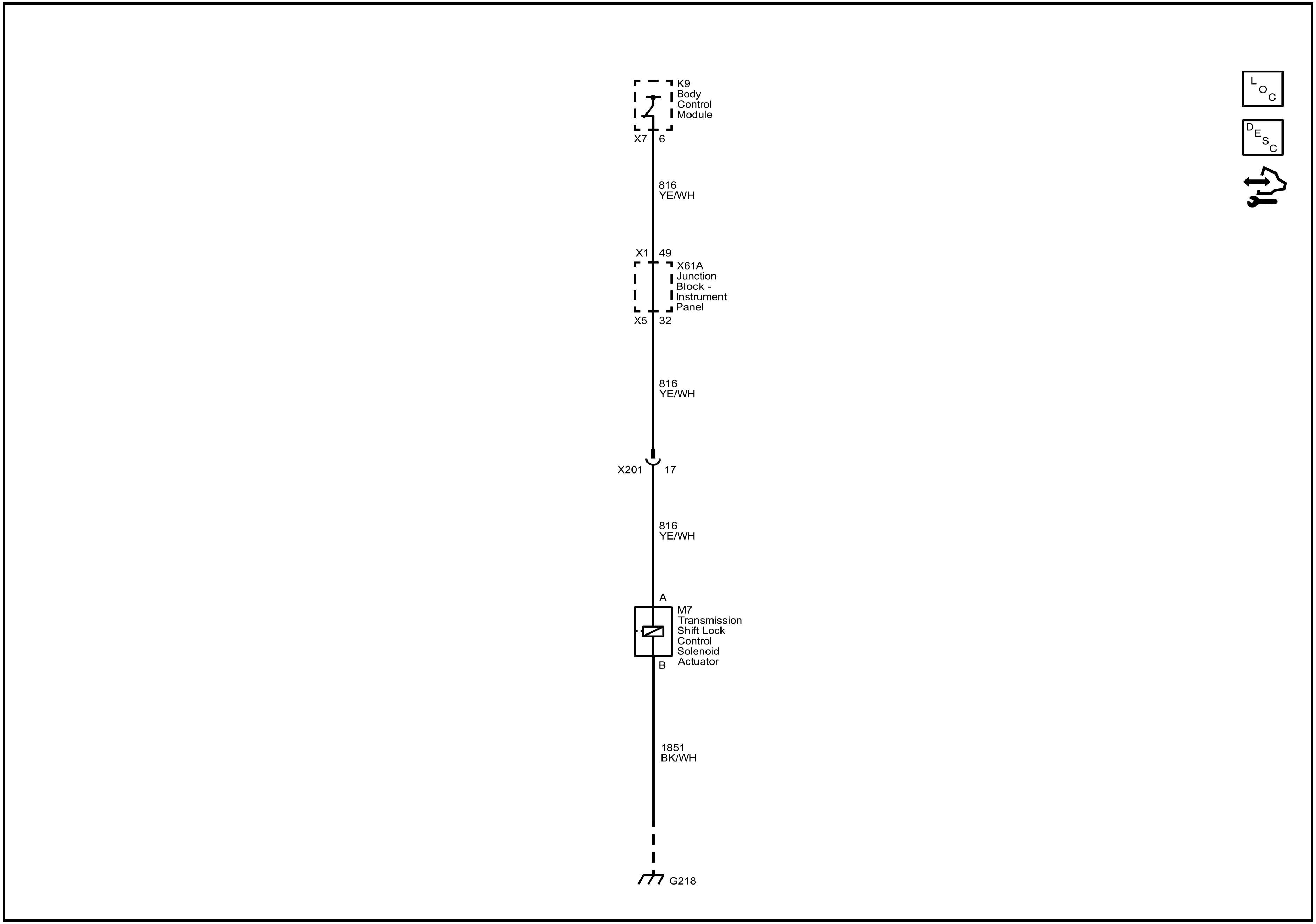
A scan tool must be used to enable certain PTO options and also to adjust the factory preset parameters to the desired settings.

For additional scan tool information, refer to *CELL Link Error - Link target cell (cell ID 72864) is invalid for this publication.*.

Shift Lock Control

Schematic and Routing Diagrams

Shift Lock Control Schematics (Shift Lock Control (M5U, MW7, MYC or MYD))


LOC
DESC
K9
Body
Control
Module
X7 6
816
YE/WH
X1 49
X61A
Junction
Block -
Instrument
Panel
X5 32
816
YE/WH
X201 17
816
YE/WH
A
M7
Transmission
Shift Lock
Control
Solenoid
Actuator
B
1851
BK/WH
G218

4693609

Description and Operation

Automatic Transmission Shift Lock Control Description and Operation (Without T4Z)

The Automatic Transmission Shift Lock Control System is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The Automatic Transmission Shift Lock Solenoid (serviced as the Automatic Transmission Shift Lock Actuator)
- The Body Control Module (BCM)
- The Engine Control Module (ECM)

The BCM controls the voltage to the shift lock control solenoid though the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will supply voltage to the shift lock control solenoid:

- The ignition is in the ON position.
- The ECM sends an input via GMLAN serial data to the BCM when the Transmission Control Module (TCM) indicates the transmission is in the PARK position.
- The BCM receives a brake applied input from the stop lamp switch.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, releasing the mechanical lock on the shift lever as the solenoid energizes. The energized solenoid allows the driver to move the shift lever out of the PARK position. When the brake pedal is not applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. When the transmission is in the PARK position, the de-energized shift lock control solenoid will prevent shifting as the lever is mechanically locked in the PARK position.

During remote start operation the BCM will de-energize the automatic transmission shift lock control circuit, locking the shift lever in the PARK position

Automatic Transmission Shift Lock Control Description and Operation (With T4Z)

The Automatic Transmission Shift Lock Control System is a safety device that prevents an inadvertent shift out of PARK when the engine is running. Vehicles equipped with the Safety Belt Assurance System (RPO T4Z), the driver must press the brake pedal and have the driver and if present, the front outboard passenger safety belt(s) buckled before moving the park lever out of the PARK position. The system consists of the following components:

- The Automatic Transmission Shift Lock Solenoid (serviced as the Automatic Transmission Shift Lock Actuator)
- The Body Control Module (BCM)
- The Engine Control Module (ECM)
- The Inflatable Restraint Sensing and Diagnostic Module (SDM).

The BCM controls the voltage to the shift lock control solenoid though the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will supply voltage to the shift lock control solenoid:

- The ignition is in the ON position.
- The ECM sends an input via GMLAN serial data to the BCM when the Transmission Control Module (TCM) indicates the transmission is in the PARK position.
- The BCM receives a brake applied input from the stop lamp switch.
- The SDM determines if the occupied driver and front outboard passenger, if present, have their safety belt(s) buckled.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, releasing the mechanical lock on the shift lever as the solenoid energizes. The energized solenoid allows the driver to move the shift lever out of the PARK position. When the brake pedal is not applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. When the transmission is in the PARK position, the de-energized shift lock control solenoid will prevent shifting as the lever is mechanically locked in the PARK position.

During remote start operation, the BCM will energize the shift lock control circuit, locking the shift lever in the PARK position.

Vehicles with the Safety Belt Assurance System, will display the following message “Shift Locked, Buckle Seatbelt” if the driver or front outboard passenger, if present, and safety belt(s) are not buckled. The vehicle will not shift out of PARK. Buckle the safety belt(s) to unlock the shifter.

This system may not allow the vehicle to shift out of PARK if an object such as a briefcase, handbag, grocery bag, laptop, or other electronic devices is on the front outboard passenger seat. If this happens, remove the object from the seat or buckle the safety belt.

Vehicles with the Safety Belt Assurance System, will display the following message “Shift Unlocked, Brake To Shift” if the system times out and allows the vehicle to be shifted out of PARK after 30 s following brake applied.

The Safety Belt Assurance System can be disabled with a calibration file update in the K36 Inflatable Restraint Sensing and Diagnostic Module using SPS. This procedure should only be done to help resolve a customer dissatisfaction issue.

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